

# **STABILIZATION OF PURCHASING POWER OF MONEY**

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## **HEARINGS**

BEFORE THE

### **COMMITTEE ON BANKING AND CURRENCY OF THE HOUSE OF REPRESENTATIVES**

SIXTY-SEVENTH CONGRESS

FOURTH SESSION

ON

## **H. R. 11788**

TO STABILIZE THE PURCHASING POWER OF MONEY

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DECEMBER 18, 19, 20, AND 21, 1922

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#### STATEMENTS OF

- Dr. IRVING FISHER**, Professor of Political Economy, Yale University.  
**Prof. JAMES H. ROGERS**, Acting Professor of Economics and Finance, Cornell University.  
**Dr. WILLFORD I. KING**, Economist, National Bureau of Economic Research, New York City.  
**Mr. ROBERT D. KENT**, President Merchants Bank of Passaic, Passaic, N. J.  
**Mr. PHILIP P. WELLS**, Middletown, Conn.  
**Mrs. FREDERICK LESLIE RANSOME**, Legislative Chairman American Association of University Women, Washington, D. C.  
**Dr. FRANK A. WOLFF**, Physicist, Bureau of Standards, Washington, D. C.  
**Dr. GEORGE H. SHIBLEY**, Director of Research Institute, Washington, D. C.  
**Mr. WILLIAM C. LEE**, Member National Monetary Association, Washington, D. C.



WASHINGTON  
GOVERNMENT PRINTING OFFICE  
1923

COMMITTEE ON BANKING AND CURRENCY.

HOUSE OF REPRESENTATIVES.

SIXTY-SEVENTH CONGRESS, FOURTH SESSION.

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# STABILIZATION OF PURCHASING POWER OF MONEY.

COMMITTEE ON BANKING AND CURRENCY,  
HOUSE OF REPRESENTATIVES,  
*Monday, December 18, 1922.*

The committee met at 10.30 o'clock a. m., Hon. Porter H. Dale presiding.

Mr. DALE. Gentlemen, if there is no objection to beginning before we get a quorum, the committee will come to order.

The committee has met this morning to take up for consideration H. R. 11788, and there are several well-known men, men of reputation, political economists, who would like to have the committee hear them this morning. Two of them are in a hurry to get away, and if agreeable to the committee and to Dr. Irving Fisher, professor of Yale University, we will listen to him first. Doctor Fisher, you may proceed.

(The bill referred to, follows:)

[H. R. 11788, Sixty-seventh Congress, second session.]

A BILL To stabilize the purchasing power of money.

*Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,*

## REPLACEMENT OF UNSTABLE BY STABLE DOLLAR.

That at three o'clock eastern time in the morning of January 8, 1924, the gold dollar of the United States shall cease to be a constant quantity of gold of variable purchasing power, and thereafter shall be a variable quantity of standard gold bullion of approximately constant computed purchasing power.

Said quantity of standard gold bullion, constituting a gold dollar at any given time, shall be ascertained and fixed from time to time by the computation and use of index numbers of wholesale prices as hereinafter set forth: *Provided*, That the gold dollar shall remain twenty-five and eight-tenths grains of standard gold until some other quantity is fixed under this act.

## COMPUTATION OF INDEX NUMBER AND ITS DEVIATION FROM PAR.

SEC. 2. That for the purpose of computing approximately the fluctuations of various wholesale prices in the United States after three antemeridian, eastern time, January 8, 1924, and of computing index numbers such as will approximately measure the average of such fluctuations, and of computing therefrom the approximate fluctuations in the purchasing power of gold, the Bureau of Labor Statistics, hereinafter referred to as the Computing Bureau, shall proceed as follows:

(a) From the list of commodities and the quantities thereof marketed at wholesale in the United States the Computing Bureau shall from its data, immediately after the passage of this act, make up a list of selected commodities comprising about one hundred commodities (not less than seventy-five nor more than one hundred and twenty-five) deemed by it to be the most suitable (as to importance and otherwise) to be used for computing the said index number.

(b) Immediately after January 1, 1924, the Computing Bureau shall compute, from the best accessible data, the average price of each of these commodities for the year 1923.

(c) From the several average prices computed and quantities listed for 1923 by the Bureau of Labor Statistics the Computing Bureau shall compute an ideal

composite "goods dollar" for reference purposes consisting of such quantities of the several selected commodities, proportional to the quantities so listed by the Bureau of Labor Statistics, that their aggregate value, at the average prices so computed for 1923, shall equal 100 cents.

(d) From average wholesale prices computed from price quotations taken on the first Wednesday (or, if that day be a holiday, the next business day) of the months of January, March, May, July, September, and November of 1924 and each year thereafter, the Computing Bureau shall speedily compute the value, in cents, of the composite "goods dollar," and such value in cents shall be the index number of prices for that date.

(e) The Computing Bureau shall compute the deviation from par of such index number by subtracting 100 cents from said index number. Thus, if the index number is \$1.01, the deviation is 1 cent or 1 per centum above par, and if the index number is \$0.98, the deviation is 2 cents or 2 per centum below par.

#### TRANSMISSION THEREOF TO BUREAU OF THE MINT.

SEC. 3. That the index number, deviation percentage, and all the data from which they are computed shall (unless delayed by unavoidable causes) be transmitted by the Computing Bureau to the Bureau of the Mint within one week from the day to which the data relate.

#### CALCULATION OF THE CORRECTION OF THE DOLLAR'S WEIGHT.

SEC. 4. That the Bureau of the Mint, upon receipt from the Computing Bureau of such percentage deviation, shall forthwith calculate a percentage correction or adjustment to be added to, or subtracted from, the then weight of the dollar. Said adjustment (provided it shall never exceed the "brassage" charge of 1 per centum described below) shall be equal to the percentage deviation.

#### PROCLAMATION THEREOF.

SEC. 5. That the Bureau of the Mint shall then forthwith give public notice that, on and after the day next following such notice, and until changed by further like notice under this act, the number of grains of standard gold so computed shall constitute the gold dollar of the United States; and thereupon the number of grains of standard gold in the gold dollar of the United States shall be fixed as prescribed in such notice.

#### UNRESTRICTED ISSUE OF CERTIFICATES FOR GOLD (FREE COINAGE).

SEC. 6. That after January 7, 1924, the Bureau of the Mint shall receive, subject to a "brassage charge" of 1 per centum and subject to such conditions and limitations as are now provided by law touching the receipt of gold bullion to be coined, all gold bullion offered to it, and shall pay for the same with "gold bullion dollar certificates" described hereinafter at the rate of \$1 for the number of grains of standard gold in the dollar as then last fixed by or under this act and (as to any balance less than \$100) in lawful money.

#### UNRESTRICTED REDEMPTION OF CERTIFICATES IN GOLD.

SEC. 7. That after January 7, 1924, the Mint Bureau shall receive all gold bullion dollar certificates tendered to it and shall forthwith pay for the same, dollar for dollar, in standard gold bars at the rate of \$1 for the number of grains of standard gold in the gold dollar of the United States (as fixed by or under this act for the time of such receipt) and (as to any balance less than five ounces of standard gold) in lawful money.

#### DETAILS—CONVERSION OF COIN INTO BULLION.

SEC. 8. That after the passage of this act no gold coin shall be struck by the United States. The Secretary of the Treasury shall provide, by rules and regulations to be issued within three months after the passage of this act, for the conversion before January 7, 1924, of gold coin of the United States owned or acquired by the United States into bars of standard gold, each containing not less than five ounces, and for like prompt conversion of all like gold coin thereafter acquired by the United States.

TO FACILITATE THE WITHDRAWAL OF GOLD COIN FROM CIRCULATION INTO THE TREASURY THROUGH THE FEDERAL RESERVE AND NATIONAL BANKS.

*Provided*, That the United States, under such rules and regulations as the said Secretary may prescribe, shall receive all standard gold coin of the United States offered to it and pay for the same in lawful money at the rate of \$10.01 of lawful money for every \$10 of standard gold coin so offered from the date of this act to January 7, 1924, inclusive, and at the rate of \$1 for every dollar of standard gold coin offered to it thereafter. Such payment shall be made in the gold bullion dollar certificates herein authorized and (as to any balance less than \$100) in lawful money.

CONVERSION OF OLD CERTIFICATES INTO NEW.

SEC. 9. That within three months after the passage of this act the preparation, issue, and paying out by the United States of present gold coin certificates shall cease. For all gold coin certificates then owned or thereafter acquired by the United States there shall be substituted, dollar for dollar, gold bullion dollar certificates certifying "that the United States of America will pay the bearer on demand \$100 in standard gold bars of not less than five ounces each and any smaller balance in any lawful money." Upon such substitution such gold coin certificates shall be destroyed.

TO ACCELERATE SAID CORRECTION AT THE START, ESPECIALLY THROUGH THE FEDERAL RESERVE AND NATIONAL BANKS.

*Provided*, That the United States, under rules and regulations to be prescribed by the Secretary of the Treasury, shall receive all gold coin certificates offered to it and pay for the same in lawful money at the rate of \$10.01 of lawful money for every \$10 of gold certificates so offered from the date when their issue ceases to January 7, 1924, inclusive, and at the rate of \$1 of lawful money for every dollar of such certificates so offered after January 7, 1924.

GOVERNMENT GOLD RESERVE AND SURPLUS.

SEC. 10. That the Secretary of the Treasury shall divide all the gold against which gold coin certificates and gold bullion dollar certificates are outstanding at three o'clock antemeridian January 8, 1924, into two parts, one part to be known as the reserve against outstanding gold bullion dollar certificates and equal to 50 per centum of the value of the gold certificates then outstanding and the remaining part to be known as the surplus in excess of said reserve.

This remainder or "surplus" shall be forthwith transferred to the general fund of the Treasury as the initial profits of the new system.

The "reserve" shall be maintained daily as nearly as possible at 50 per centum of the gold bullion dollar certificates outstanding from time to time.

If on any date the reserve falls short of 50 per centum it is to be restored by withdrawing from circulation and canceling gold bullion dollar certificates.

If on any date the reserve exceeds said 50 per centum it is to be restored by issuing and putting into circulation the requisite number of new gold bullion dollar certificates.

The Secretary of the Treasury is authorized to make said withdrawals of certificates from circulation by withdrawing from the Government deposits in national banks and to issue certificates and place them in circulation by adding to those deposits.

CERTIFICATES AVAILABLE FOR BANK RESERVES.

SEC. 11. That all provisions of existing banking laws of the United States regulating the holding of gold reserves, including reserves of any Federal reserve bank, national bank, or other bank, shall be deemed to be satisfied by such holding of gold bullion dollar certificates.

LEGAL TENDER.

SEC. 12. (a) That gold coin of the United States shall not be a legal tender in payment of debts falling due after January 7, 1924.

(b) That all debts, public and private, falling due after January 7, 1924, including debts theretofore created and expressed in dollars of "gold coin of

the present standard of weight and fineness," or expressed in words of like import, shall be payable in standard gold bars at the rate in grains per dollar fixed by or under this act for the time when each debt falls due, and the balance, if any, less than five ounces, in lawful money. Such standard bars shall be lawful money and a legal tender for this purpose.

#### PUBLICITY.

SEC. 13. That the computing bureau shall, as promptly as possible, make public in suitable public documents all the pertinent facts and figures concerning the calculation of the index number and its percentage deviation from par, including the market quotations for the constituent commodities. The mint bureau shall likewise make public its findings as to the adjustment of the dollar's weight.

#### FINANCING THE ADMINISTRATION OF THIS ACT.

SEC. 14. That a sum equal to the initial profit as defined in section 10, or so much thereof as may be necessary, is hereby appropriated and is made available until expended as the Secretary of the Treasury shall direct for all expenses necessary for the administration of this act; and the Secretary of the Treasury is authorized to use the receipts from time to time from the "brassage charge," as defined in section 6, for the same purpose.

#### FUTURE REVISIONS OF INDEX NUMBERS.

SEC. 15. That immediately after the data of the census of 1920, and other subsequent censuses, respectively, are available, the computing bureau, from such data and the best other available data, shall revise the list of selected commodities and designate a revised composite "goods dollar" by the same method as hereinbefore described and such that, at the moment of revision, the value of the new or revised "goods dollar" shall be equal to that of the old.

#### PENAL CODE AMENDMENT.

SEC. 16. That section 147 of the Penal Code approved March 4, 1909, defining "obligation or other security of the United States," is hereby amended to include the gold bullion dollar certificates hereby authorized.

#### REPEAL OF FORMER ACTS.

SEC. 17. That all acts and parts of acts inconsistent with this act are hereby repealed.

#### STATEMENT OF DR. IRVING FISHER, PROFESSOR OF POLITICAL ECONOMY, YALE UNIVERSITY.

Professor FISHER. Mr. Chairman and gentlemen of the committee, I think the last time I was here before the Committee on Banking and Currency was at the time the Federal reserve act was under consideration. I remember at that time there was a great lack of enthusiasm, not only in the committee but in the country, as to that act, one of the few acts which has been passed in this country without the pressure of popular support; and yet if it had not been for the passage of that act we should not have been able to finance the war without going on a paper basis. It has also saved us from panic at least twice.

This bill for stabilizing the dollar is similar in several respects. There is not a strong popular pressure on Congress to have it passed, although there is a great deal more support for it, as you will find as we proceed, than is ordinarily realized by those who have not yet kept pace with it as I have; and the object of this bill is somewhat similar to that of the Federal reserve act, in fact you might say it is supplementary to it.

The Federal reserve act has stopped panics, but it has not stopped crises, and in order that the job shall be finished something should be done to stop crises. We have been in the last 18 months through the severest crisis probably—certainly one of the severest crises—that the United States has ever passed through. That would have been avoided if we had had a stable dollar, and as I shall try to show, these business cycles which pass through periods of crisis,

depression, liquidation, recovery, and so on are at bottom chiefly changes in the purchasing power of the dollar. That is the essential element in the cycle, which is partly cause and partly effect, but if it can be eliminated you can almost entirely eliminate the cycle itself. If you stabilize the dollar you stabilize business.

I cited the fact that there was no general realization when the Federal reserve act was passed of its necessity. Even if we had known the war was coming, probably there would have been little such realization, and yet it was passed because the committee and Congress took the statesmanlike view they did and not the politician's view of the situation. I hope the same will be true in the case of this bill.

The great difficulty in getting strong popular support for a bill of this sort is similar to the difficulty in getting support for the Federal reserve bill. It seems technical; the average man rather shrinks trying to understand it.

And the fact is that it is the most difficult thing in the world for the popular mind to understand that the dollar is unstable. We in this country probably come nearer understanding that than in any country. You may be surprised to hear me say that, because almost all you hear of unstable money is as to the unstable money of Europe. And yet even as to the unstable money of Europe, the realization of it in Europe is very slight indeed; in fact, we in America understand that the mark has fallen a great deal better than the people in Germany understand it. We understand that the ruble has fallen far better than the average Russian understands it. A year ago I was in Germany and I took special pains to find out to what extent the average man and woman in Germany realized that the mark had changed. I had found that in England and in France there was practically no realization among the ordinary rank and file of the population that there was any depreciation of the pound sterling or the franc, but I had assumed—because the mark had changed so much more than the pound sterling, or even the franc, and because there is so widespread an educational system—that in Germany it would be common knowledge that the mark had fallen and that the reason for it was understood.

But before I went to Germany I had been told by Lord D'Aberton—who, by the way, is one of the few men in England and in the world who thoroughly understand this problem and the necessity of stabilizing money, and who had recommended it in Parliament, and who is now the British ambassador to Germany—told me in several conferences I had with him in London that when I went to Berlin I would find that neither the people nor the officials understood what was going on as to the depreciation of the mark and the effect of the issue of paper money on that depreciation. I said, "That seems to me incredible." "Well," he said, "you will test it," and so I did. With another American economist, Professor Roman, formerly of Syracuse University, I catechised 25 average German men and women, excluding, of course, the professional economists who have been studying it there just as they have here, and addressing merely the strangers as I met them, of all classes, in the streets, in the shops. I found that, out of those 25, only two had the slightest inkling that there had been any change in the mark or as to why there had been any change in the mark. One of those was a German-American who had understood it before he came to Germany, and the other was an accountant. The remaining 23 had not the slightest conception of it.

I think this is the most important fact that I brought back from Europe. I published three articles on monetary conditions in Europe, which I went over to study. My colleague at Yale, Professor Adams, the tax expert, after reading those articles, said that that was the one new point that he found in those articles, and I think it should be recorded as a fact in your minds that the average man in Europe does not realize that his own money has fallen or changed.

To illustrate this ignorance I will cite the case of a woman who kept a shop in one of the suburbs of Berlin where Professor Roman and I bought a number of gentlemen's furnishing goods. After we had finished our purchases we spent about an hour and a half talking with that woman. We found these goods in terms of our own money very cheap, but in terms of marks, of course, they were very dear as compared to what the prices had been before the war. We did not ask why they were so cheap, because she would not have understood what we were driving at, but we asked why they were so dear. We said, "Why do you have to charge so much for these articles?" "Well," she said, "it is terrible. I don't really understand why things are so high, and they are going up all the time. But I am not a profiteer. It is not my fault." I

said I did not suppose it was. She said, "For instance, that shirt"—by the way, it is the one I have on—"I have sold you for the same price which I will have to pay to replace it, but I have made a profit on it, because I bought it for less." Of course, she was really deluded. The fall of the mark was what had really happened and she was not getting back as much as she paid for it in actual cost.

"Well," I said, "why do prices still go up? You used to think it was the blockade, when the Allies were blockading Germany." She said, "Yes; we used to think it was the blockade." "But," I said, "prices have gone up faster after the blockade than before." She said, "Yes; that was very true." Then I said, "What is the reason?" And she began to cast about and she gave very much the same reasons as have been given in this country to explain what they call the high cost of living (in my book on stabilizing the dollar I have enumerated over 40 such alleged explanations of why the cost of living is high). "In the first place," she said, "We have to pay so much for wages."

I knew that that was not the correct explanation if for no other reason than because Kuszynski, who is the best statistician in Berlin on this subject, had given me data which showed that the wages at that time in Germany had only risen tenfold in marks, as compared to what they were before the war, while the prices of what the wage earner bought had risen twenty-five times and the wholesale prices had risen thirty-five times. So you could scarcely explain a twenty-five fold or a thirty-five fold rise in prices by a tenfold rise in wages. But I did not argue with the woman, because we wanted to play the rôle of the ignorant foreigner who was merely trying to get information; so I said, "What else?" "Well," she said, "freight rates. We have to pay more for freight." Of course, we know that freight rates go up even more slowly than wages, so that was a false explanation. Then she went on giving one thing after another at random, evidently not being herself satisfied that there was much in it.

Finally, after at least an hour of questioning, she incidentally mentioned the fact that the Government was very inefficient and extravagant, and then we thought perhaps she was getting to the point. We said, "What about it?" "Well," she said, "they don't seem to mind how much they spend, whether they have got it in hand or not. We have to make both ends meet." Then I thought she had in mind the real point; but, as she said nothing further, I said, "What does the Government do when it doesn't make both ends meet?" She shrugged her shoulders and said, "I don't know exactly. They get along somehow." I said—I thought it was better to ask a direct question after all this time—"Don't the Government make up the deficit and pay such bills as it can't pay out of taxes simply by printing more paper money and putting it into circulation?" She looked at me rather blankly and said, "Yes, I suppose so. Why shouldn't they?" "Well," I said, "Don't you suppose that putting so much paper money into circulation would have the tendency to make prices rise?" She looked even more amazed and said, "Why, no. Why should it?"

Now, this woman had been the victim of the rise in prices or falling purchasing power of the mark for eight years, and had not yet waked up to what was happening.

I have no doubt the same thing is true in Russia. When we live in a money atmosphere we do not appreciate it, just as we fail to see the physical atmosphere because we look right through it, we live and move and have our being in it. We can see the change in somebody else's money far better than we can see the change in our own. So, as I say, every schoolboy in this country knows that the mark has fallen, and he knows the reason for the falling of the mark, namely, paper inflation. But in Germany they know neither of those two things; on the contrary, what they think is that the mark has stayed the same but the prices have risen for all these various reasons and that the dollar has risen, and they demand of us why we charge so much for our dollar!

There is an English banker who wrote a book on the value of money, Sir David Barber, one of the men who introduced the "gold-exchange standard" into India, which, when it was introduced, was just as much a novelty as this proposal that you have before you is or appears to be to-day. He describes the conversation between a British merchant and a Hindu merchant in the course of which—this was in the eighties or nineties, when prices were falling in gold-standard countries and rising in silver-standard countries—the British merchant said to the Hindu merchant: "Isn't it strange how much the rupee has fallen?" And the Hindu merchant looked at him in surprise, and said: "I have my agents all over India, and I do not recall any of them having

mentioned the fall of the rupee. That is news to me." And then he caught himself and said, "But I do remember that they spoke about the rise in the pound sterling. Perhaps that is what you are thinking about." In other words, the Hindu would always think of this change as a rise in England's money and the Englishman would think of it as a fall in Indian money. You see, we are in the position of the aviator in an airplane—we are riding on the dollar, so to speak—and the aviators tell us that as they go up the earth seems to be sinking away from them, and once they come down the earth seems to be coming up.

The point I am driving at is this: That just as the Germans do not appreciate that their own money changes in value, so we Americans are universally blind to the fact that our American money changes; but it is a fact, nevertheless, and one that we have got to wake up to if we are going to correct the evils which come out of that fact.

Now, what are the facts? We have a method to-day of measuring money, which is only about one generation old; in fact, it has come into general use only in recent years, and I might say that I believe it is because we formerly lacked an instrument for measuring money that we have only recently begun to appreciate that money does change.

After the Napoleonic wars people were puzzled by the high price of bullion, and parliament put a parliamentary committee to work to find out what this high price of bullion meant. The "Bullion Report" of this committee is a standard to-day and is the chief addition to the knowledge on money that came as a consequence of the Napoleonic wars. This Bullion Report informs us that the apparent rise in the price of gold really meant a fall in the value of paper. But now after this war we can go a step further, because we have this instrument for measuring money. At that time the only measurement was that of paper in gold, or of gold in paper, and all the Bullion Report amounted to was telling us that gold was a better standard than paper; that it was more nearly correct to say that gold remains the same and that paper changed than it was to say, as most people thought, that paper remained the same and gold changed. But now we know that both gold and paper change, and, as a matter of fact, as we look back on that period of the Napoleonic wars, we know a great deal more about the changes in money than those who wrote the Bullion Report, for they had no knowledge of any exact method of measuring this change.

As I say, we now have an exact method or instrument for measuring this change, in what is called the index number.

An index number of prices is a figure which shows the average percentage rise or fall of the prices of various commodities. If we find that, last month, sugar has risen 4 per cent and wheat has risen 10 per cent, then, on the average, the two have risen 7 per cent, 7 being halfway between 4 and 10. So we say the index number is 107 for those two commodities on the basis of last month being considered 100 per cent.

Mr. DALE. Doctor Fisher, do you object to being questioned as you proceed?

Doctor FISHER. I am in the hands of the committee. I think it may be better for me to finish my statement and then be asked questions, unless the questions are specifically on the points as I go along.

Mr. DALE. That was what occurred to me right there.

Doctor FISHER. It will not bother me, if that is the best way for the committee to get the information.

Mr. DALE. If you prefer, we will not question you until you get through with the statement.

Mr. GOLDSBOROUGH. Mr. Chairman, I had a talk with Doctor Fisher before the meeting, and he would prefer to finish his statement first.

Mr. DALE. Then let us have it understood that he will not be interrupted until he finishes his statement. You may proceed, Doctor.

Doctor FISHER. If it is worth while to go into further explanations in regard to index numbers, I shall be very glad to do that.

Mr. DALE. No. That is not what I had in mind.

Doctor FISHER. Now, the United States Bureau of Labor Statistics has an index number based not on two commodities but on 404 commodities. The rise or fall of each price—the price of each of these 404 commodities is recorded, and the whole 404 are then averaged. They are averaged with due regard to their relative importance, some commodities being considered as much as ten times or more as important as another commodity.

Take, again, the example of wheat and sugar: Sugar has gone up 4 per cent and wheat 10. Then, I said on the average they had gone up 7; but if you

consider sugar twice as important as wheat, we average the two by taking sugar twice. That is, we average not simply the figures 4 and 10 but the three figures 4, 4, and 10, the average of which is 6; so that the index number in that case would be 106 instead of 107. Or, the other way around, if wheat is regarded twice as important as sugar, we count 10 twice and take the average of 4, 10, and 10. The average in that case is 8, and the index number is 108. So you get slightly different results, according to what weight you give to sugar and wheat. You get the index number 107 if you count them equally important, 106 if you count sugar twice as important as wheat, and 108 if you count wheat twice as important as sugar. But all these three figures, 106, 107, and 108, are close together; so that, in general, it doesn't make much difference how you do the weighting. But the United States Bureau of Labor Statistics does, as a matter of fact, make the weighting with very great care.

It used to be thought that the index number was of doubtful value, but that impression has gradually disappeared; and in my book on "The Making of Index Numbers," which will be out to-morrow, I think I have shown that an index number when properly made is of extraordinary value and accuracy; that if the samples are well chosen and the number of commodities is sufficiently great—anywhere from 50 up—the index number is usually correct, within 1 per cent.

Now, by means of an index number we can measure the changes in the level of prices from time to time, and thereby measure the reciprocal change in the purchasing power of money; for it evidently is the same thing to say that prices have doubled as a consequence of the war, as to say that the purchasing power of the dollar has been cut in two. When price levels go up the dollar goes down, and when price levels go down the dollar goes up. It is relatively all the same, whether we express it one way or the other; but in more absolute measurement it is much more correct, as I think will be admitted as we go on, to say that the dollar changes than to say that the level of prices changes. We are all subject to the illusion of the German woman I referred to.

Now, if we take the index numbers we find that the English index numbers have been pushed back as far as 1782. Taking those English index numbers of Jevons, we find that in England prices doubled between 1789, which was a low point, and 1809, and between 1809 and 1849 prices were cut in two; in fact, they fell a little more than that.

Between 1849 and 1873, prices increased 50 per cent. Between 1873 and 1896 prices fell in England about 30 per cent. Between 1896 and 1914, the date of the outbreak of the war, prices rose in England about 35 per cent. Between 1914 and May, 1920, prices rose in England—I have forgotten the exact figure—about three fold. Then they fell back in a year about 45 per cent.

If we tell it in terms of dollars, we may go through the same history and say just the opposite, that between 1789 and 1809 the dollar, or rather the pound sterling, was cut in two; between 1809 and 1849 it doubled, and more; between 1849 and 1873 it was reduced to two-thirds of what it had been; between 1873 and 1896 it appreciated about 25 per cent, and between 1896 and 1914 it depreciated, and depreciated still more rapidly during the war, and then suddenly appreciated nearly 50 per cent since the war. In this country we had a very similar experience, even more pronounced, and I have here—I just happened to come across it when I was leaving New England—a little graphic statement of the change in the dollar gotten up by a New York engineer, Mr. Elms, where he shows the dollar beginning with 1896, and how it has had part of its value cut out of it until, in March, 1920, when it was about the smallest, it was only 26 per cent of its value in 1896.

Now, when we have such a dollar as we now have, one which instead of being stable is constantly changing, and changes sometimes, as in that diagram there, between 1896 and 1920, practically fourfold, we have a pretty serious situation and it is rather remarkable that people do not yet realize it. They are oblivious only because of the consideration that I have already mentioned, that we think in terms of money, and that therefore money is the last thing we really think of.

Many people are quite willing to admit that an index number truly measures price levels, and, therefore, truly measures the purchasing power of the dollar, but they would refuse to admit the correctness of such a diagram as that, because they would still want to have it proved to them that it was not the scarcity of goods that made prices rise but that it was something relating

## THE SHRINKING DOLLAR



1896—100 UNITS OF PURCHASING POWER

1904—77 UNITS OF PURCHASING POWER

1912—65 UNITS OF PURCHASING POWER

1916—53 UNITS OF PURCHASING POWER

MARCH, 1920—26 UNITS OF PURCHASING POWER

A PHENOMENON NOT OF WAR TIMES ONLY, BUT OF A QUARTER OF A CENTURY

to money. So we come to the question of what is really the cause of these changes.

Looking at Germany across the water, seeing more clearly than they do who are in the midst of what has happened to the mark, we all admit that it was inflation that was primarily responsible for the change in the mark. We would not deny that the destruction of the war had its effect and that there was a real scarcity of goods in Germany, which scarcity, to a certain extent, would explain these high prices in Germany, but we would all admit that the great factor was monetary inflation. That is still truer in Russia. They all admit this, even though Russia is still more lacking in goods—to the starvation point. What I want to impress upon you is that that is universally the truth, that the changes in the purchasing power of money are universally or almost universally due, for the most part, to changes in money and not to changes in goods.

Theoretically when prices have risen as they have during the war either might be true. Either the rise in prices might be due to the scarcity of goods or it might be due to the superabundance of money, but as a matter of actual historical fact it is, so far as I know, universally true—certainly true in all the instances where I have made any study of it, and I have been studying this problem now for 20 years—that it is the change in the money that makes the changes in the value of the money, and not changes in the goods.

There are a good many ways of showing this. First take the probability argument. As I have said, we do not see our own money very clearly because we are in it, but if a man from Mars or from Europe should come to us without knowing about our money and should be asked whether these changes in price levels that I have described were more likely to be due to the coincidence of a large number of scarcities in the goods available or to be due to the one cause of superabundance of money he, without knowing anything about the statistics of the case, without having studied our banking statistics or our money statistics or our production statistics, would say something like this: "Well, not knowing anything about it, it might be due to either, but I should think it was a great deal more likely that it was due to a single money change than that it was due to a multiplicity of coincident changes in commodities." If I should throw 100 coins up into the air and they all came down "heads" and you were asked to tell me whether you thought it was more likely that that was due to the fact that there just happened to be 100 coincidences or that the coins were loaded or had both sides marked "heads" or some common cause, you would immediately say, "Well, there is nothing intrinsically impossible that the coins should all come up heads at once, but it is unlikely." In logic it is a universal rule that you accept a simple and single explanation where you can get it rather than complicated and multiple explanations.

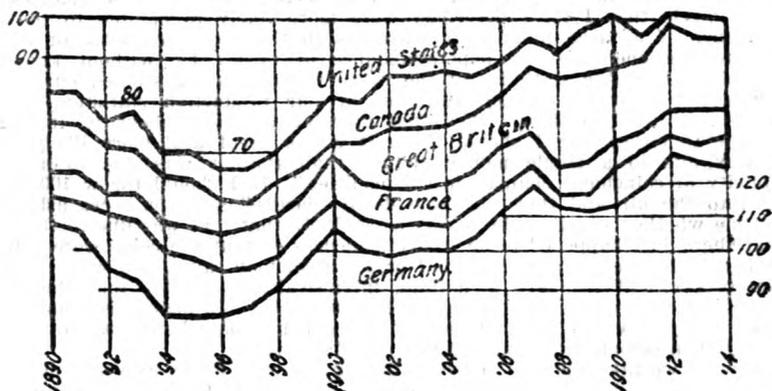
Now, if we take the rise of prices during the war, while, as you remember, most people explained it at the time as being due to the scarcity caused by the war, to the destruction by the war, to the increase of demand in Europe, and all the other causes affecting commodities, nevertheless we now recognize that there is one great cause, and that was inflation.

Before the war it was even simpler. Between 1896 and 1914, in this country, prices rose 50 per cent, and then there was no destruction of goods. It is likely that there was simultaneous scarcity of sugar and wheat and meat and other things that were consumed in the United States in that period of peace? Or was it more likely that there was an inflation of the currency? Is it more likely, in other words, that there should be simultaneously a scarcity of a multitude of commodities or a superabundance of just one? I think you would say, from the standpoint of probability, the latter is much more likely.

So much for the argument of probability. We can now back that up by an argument from statistics; and it can be backed by statistics even more than when my book on stabilizing the dollar was written in 1920, because now we have fuller statistics, and this idea that scarcity of goods can explain, and does explain, the rise in prices is proven false, because the scarcity of goods has been more or less mythical, especially in this country, and before the war quite decidedly. There was no scarcity of goods, but there was a superabundance of money. So statistics show quite clearly what caused the changes in prices.

In the third place there is an argument of comparing moneys of different countries. We find that the price movements of different countries that have the same kind of money are similar, whereas the price movements of different countries where the moneys are different will be different. You will notice here a diagram showing the changes in prices in different countries between 1890 and 1914. This is a period of peace. You will notice a strong family resemblance between the different countries for the United States, Canada, and Great Britain, France, and Germany. The curves show very much the same movements of prices in these countries having the same money. If we take silver countries, we find the same thing true of them—a strong family resemblance between price movements before 1893 of India, Japan, and China, which were the three big silver-standard countries in that period. (To-day we have scarcely any silver countries in the world except China.) In short, when prices go down in one gold country they go down in another, and when they go up in one they go up in another; and likewise for silver-standard countries.

In the fourth place, we find a contrast between gold-standard and silver-standard countries. In that period between 1873 and 1896, when prices in gold-standard countries were going down, prices in silver-standard countries were going up. So you have two sets of curves—one for gold countries, another for silver countries—the two sets being quite different from each other. Likewise we find a contrast between a gold or silver country and a paper country. We have also the example of our own prices in the United States when we were on the greenback standard and prices in England when they were on the gold



standard. Currency is the lower one and greenback currency is the upper one. [Indicating.] The two show no family resemblance.

Now, if these changes in prices were chiefly a matter of scarcity of goods—wheat, sugar, meat, and various other things—we should not find these classifications; we should find that when there was a dearth of goods prices went up and when there was a superabundance of goods prices went down, whether it was a silver-standard country or a gold-standard country or a greenback country or whatever it was. But that is not what we find. We find instead that the price movements always go with the money and not with the goods, so money must be the primary consideration.

In the fifth place, we find a rough quantitative relation between the price movements in the silver countries and in the gold countries. We find, for instance, in this period, when between 1873 and 1893 prices fell in gold-standard countries 25 per cent and rose in silver-standard countries 30 per cent that that divergence between the two price levels—one up and the other down—corresponded to the divergence between gold and silver.

If you take the price of silver in the London market or the price of gold in the Shanghai market—which is, of course, the reciprocal—that the divergence between gold and silver corresponds to the divergence between the price levels in gold and silver countries. The price levels moved apart 40 per cent, because, if you take the index number in gold-standard countries, it went from 100 to 130, in gold-standard countries from 100 down to 80. Now, the divergence between 80 and 130 is very similar to that divergence between gold and silver.

Eighty is about 40 per cent below 130, and the price of silver fell just about 40 per cent.

In the sixth place, we find that there is a correspondence between quantity of the circulating medium of any country and the price level. I have here a book just out by Gustav Cassel, who is one of the leading authorities in Europe on this subject. He is from Sweden, and he has written several memoranda, as you doubtless know, for the League of Nations. He was one of the experts at the first Brussels conference in 1920, and is looked upon by Lord D'Abernon and Lloyd-George and others as one of the leading authorities on this subject. This [indicating] is a diagram comparing the price movements in Sweden with the quantity of money in Sweden; that is, the note issue of the Swedish bank. During the war these notes were practically all the money there was in Sweden.

There is a striking correspondence between those two curves; that is, when money increases the price level increases; when money decreases, the price level decreases. Thus inflation explains a rise and deflation explains a fall in price.

Now, in the United States, we have the same thing. You will notice, if you take the trouble to study the diagram on page 31 of my book, stabilizing the dollar, that the changes in the quantity of money precede the change in the price level by from one to three months. There is a strong correspondence there and evidently the cause is the money and the effect is the prices, rather than vice versa, although there is a working of relationship both ways.

Now many other checks of that sort have been made by Professor Cassel for Russia and other countries besides Sweden; by Professor Nicholson for Great Britain; by Professor Wright. I think it is, for Canada; all tending to show this—in fact, Professor Cassel has said that the one great result of the war, so far as political economy is concerned, is to show the substantial truth of the proposition that economists have stressed for many years, that the quantity of money is the chief determinant of the value of money.

Now there are other evidences that might be given, but the conclusion of the whole thing is—and I think that students of the subject are almost if not quite unanimous in their verdict—that the master key for these price movements throughout history is to be found in the money and not in the goods. So that we are justified in saying that a rise of price really is not a rise in the dearness of the goods, but a fall in the value of the money; and that a fall in prices is not, in general and to any great extent, due to an abundance of goods, but that it is an expression for the dearness of money. In other words, inflation depreciates money; deflation appreciates money, and those two oppositions sum up the whole history of price levels that we have on record, going back, as I said, to 1782. Study them with a microscope from that time to this, before the war and during the war and since the war, and you will find that is in general the case.

Now there are three kinds of inflation and deflation in this country. In this country we have all three kinds of inflation. We have a gold inflation, a paper-money inflation, and a credit inflation. In Europe they have had only the last two, and on the Continent of Europe only the middle one to any great extent; but in this country we have all three. We had a billion dollars of gold shipped us from Europe during the war, because it was only in that way that Europe could buy of us during the war to any great extent, and that inflated our gold. Then we had a great increase in Federal reserve notes and a great increase in bank deposits, both of which were made possible by the room for expansion of the Federal reserve system. If we had been on the old banking system we would not have had this possibility, but there were so many reefs that could be let out in the Federal reserve system, and which were let out, that we had, superimposed on gold inflation, paper inflation and credit inflation. Now credit inflation is rather a new phenomenon—that is, it became prominent only with this war.

Throughout history wars have been largely paid for by inflation, but, until this last war, usually by paper-money inflation. It had been the direct effect of the printing press, and we had gotten more or less used to that and tired of that. We have still in our minds the lesson of the French Revolution, when the Assignats increased the money in France so that it became valueless; we have in mind also the case of our Continental paper money in this country in the Revolution, when it used to be a joke. A barber shop in Philadelphia was papered with it as the cheapest form of wall paper. Jokes were told of the housewife who went to the meat market with a market basket full

of paper money and came back with a little slice of meat in the pocketbook, and all that sort of thing. We still say, to express the acme of worthlessness, "It isn't worth a Continental." We are having the same sort of procedure in Europe to-day, where you have paper-money inflation. But the credit inflation and the gold inflation are rather new phenomena.

The credit inflation of the war comes about, of course, when a bank lends to the Government merely by putting book credit at the disposal of the Government, or when it thus lends to an individual who lends to the Government. I remember during the war, when urging people, from the platform, to subscribe to Liberty loans, a clergyman went around with me one time who spoke to his audience somewhat in this fashion: "I want you all to subscribe to Liberty loans. Buy a thousand-dollar Liberty bond. If you haven't got the thousand dollars it doesn't make any difference; there is no sacrifice involved in it; it is the easiest thing in the world. All you have got to do is to go to the bank and borrow your thousand dollars and lend that to the Government, and if the bank asks for security for your thousand dollars tell them that you will get the Liberty bond you are going to buy with it and give them that for security. That is the nearest approach to perpetual motion I know of." Of course we know that perpetual motion is a fallacy; that you can not make something out of nothing, and when you make new purchasing power, as Professor Cassell constantly hammers away in his book—one of the most excellent books on the subject—if, I say, you make artificial purchasing power without making new things to purchase with it, you are going to have a depreciation of the money as your one great result. Well, we did exactly that. We did it in this country chiefly through credit inflation.

The gold inflation is one of the curious results of the war. Abroad, of course, there was little of this, because gold disappeared from circulation in Europe, being pushed out by paper in accordance with "Gresham's law," consequently it was dammed up in this country and in other neutral countries. It came to us before we entered the war, and since the war more has come in; so that, whereas, in the world as a whole, there has not been any extraordinary addition to the quantity of gold, nevertheless there has been an extraordinary addition to the quantity of money everywhere. Where gold has been expelled there has been no vacuum, because it has been more than filled by paper, and where gold has been received, as in the United States, there has been no vacuum; but, on the contrary, the gold inflation has been accompanied by an increase in paper and credit as well, and the result of that is that there has been not only a fall in the value of paper abroad and a fall in the value of the pound sterling, whether of paper or credit, in England, but also a fall in the value of gold in this country. So that the value of gold was really cut in two. That is the only time in history where, through the Government financing on such a big scale as was necessary to pay for this war, there has been such a reaction on gold itself.

Now, here is one of the pitfalls in American thought: Just as in Europe they can not see the change in their own money, so we can not see the change here, but we think we have a better excuse for denying it here, because we have kept to the gold standard. I constantly hear people say, "Yes; the mark is falling; the ruble is falling; all the moneys of Europe are falling, but the dollar is not falling; it is the Gibraltar, the one thing we anchor to; that is the thing we are going to use as a basis for European stability; the dollar is anchored in gold in this country; it is solid; it hasn't changed its value. Our paper is on a par with gold." This last is true relatively, but the gold itself has changed relatively to commodities. It has become a drug on the market, because it has been thrown into our circulating medium, which already was oversupplied, together with an increase of other circulating mediums, and the whole mass has reduced every unit not only of paper and credit but of gold itself.

We may say, therefore, that gold has lost during the war over half of its value due to the inflation of money in general.

So far I have tried to show: In the first place, we are blinded to this problem because we think in terms of money.

In the second place, as a matter of fact, the changes in the purchasing power of money have been very great, sometimes even fourfold even in this country of ours.

In the third place, I have tried to show that the cause, the chief cause, not the only cause, always has been, wherever we have had any object lesson to study, changes in the quantity of the circulating medium, money and credit. I have made those three points and now I come to the fourth point.

Mr. Wingo. You refer to primary causes?

Doctor FISHER. Yes; I believe that from the standpoint—that money is the master key to changes in price levels. The other things are of minor consequence.

Now, the fourth point is that the situation which results from this is a serious one, and a very different one from what most people think. When we were complaining about the high cost of living, you remember, during the war—even before the war, because, if you will recall, there was a lot of discussion about the high cost of living before the war broke out—most people thought the high cost of living represented a real poverty; that it represented a progressive deterioration of the economic power of the average man. Now, if the principles that I have been stating to you, and the facts to back them up, which are pretty universally accepted, I think, by all students of the subject, are correct, then that notion is wrong. The high cost of living did not represent that the average man was worse off; it merely represented that the yardstick, in terms of which wealth and income was measured, had decreased. Now, when that important thought comes over a person for the first time, his first reaction is to draw a sigh of relief and say: "Well, if the high cost of living doesn't mean that we are poorer, and only means that we have a 50-cent dollar, and measure everything with that shrunken yardstick, then it is only a change in book-keeping and is of no real significance."

Now, if we could make all the necessary adjustments, if salaries and wages were promptly and exactly adjusted to price levels; if the principal of a debt and the interest that had to be paid on the debt were likewise adjusted to follow the changes in prices, and if everything else were adjusted we would get along very well with a capricious dollar. We could, in the same way, get along with a changing physical yardstick. If we called the height of a barometer a yard, it would change with the weather, but we could measure our cloth by it just the same, and if we calculated the change and our prices were adjusted, properly adjusted, to the change in our yardstick, it would not make any difference to anybody.

But as a matter of fact you can not do that, and you can not do it because you are tied down by contracts which bind relationships from one point of time to another point of time.

Consequently we should be making an entirely wrong inference if we concluded that a capriciousness in the dollar is of no significance. It is of very real significance not to the average man—there isn't any average man—but to every man, because every man deviates from the average in one direction or the other. The real harm is done from the injustice by which one person loses what he really deserves; another person gains what he does not deserve. It upsets the relation between debtor and creditor. It is perfectly true, of course, that if you could adjust everything to the change in your yardstick, then the change would not be of any significance. And if we did not live in an age of credit and contracts that might be true. When the gold standard was originally established there were no long-time contracts; every transaction was practically a spot-cash transaction, and for such transactions adjustments can easily be made. But it is more difficult to-day.

When I borrow of you a thousand dollars and agree to pay it back in 10 years, it makes a lot of difference whether the dollar which I pay back has the same value as the dollar I borrowed or not. But I am pledged to pay back in dollars, whatever their value may be. So, as a matter of contract and honor, I have got to pay this, even if I pay twice as much as I borrowed, and you have got to accept it, even if I only give you half as much as you loaned. But there is injustice there just the same.

Now, the degree of this injustice is really appalling. I would like to take several illustrations of it.

Suppose you take a servant girl who put \$100 in the savings bank in 1896. To-day she takes it out and the accumulation at 3 per cent interest makes it, say, \$200. She thinks at first—because she thinks in terms of money—that she has got twice as much as she put in, but as a matter of fact when she attempts to spend her \$200 she finds she can not buy as much with it as she could have bought with the original \$100 in 1896. She really hasn't received any interest at all. Her whole \$200 is worth less than the \$100 that she started with, and it would have been better for her if she had not put this money in the savings bank but had spent it for goods in 1896. She could have bought her rings or whatever she wanted with at that time and had them all this quarter of a century and had them intact to-day, instead of waiting a quarter of a

century and buying less. She has been swindled out of all her interest, not by the savings bank but by the dollar, in terms of which the savings bank was forced to keep her account. In other words, interest has been abolished.

If Hetty Green or Russell Sage, during this period between 1896 and 1920, had tried to amass a fortune by reinvesting the "interest," they would have had their labor for their pains. At the end of this time they would have been poorer than at the beginning. Suppose Hetty Green started with a million dollars in 1896 and had made a so-called safe interest of 4 per cent and reinvested it, and then done the same thing year after year, letting it roll up; she would have been exactly in the same situation as the savings bank depositor, only on a larger scale. In other words, during that period money lenders made absolutely nothing, and there was no reward of thrift. Interest was virtually canceled.

The case was exactly the same as in the case today of inflation abroad. The story is told of a Polish clothier who decided to retire from business and sold out his stock of 100 suits of clothes for 100,000 Polish marks and invested the 100,000 marks in a "safe" loan, duly guaranteed and indorsed and with collateral security, etc., and when he got paid back he got 10 per cent, which seemed a high rate of interest, but his whole 110,000 marks that he got back, when he attempted to spend it at the end of the year he found would buy only one suit of clothes. He started with the 100 suits of clothes and ended with one, because he trusted in the meantime to the unstable Polish mark. Now, then, prices are rising, even in gold standard countries, that sort of thing is true. As Mr. Miller of the Federal Reserve Board has said, "inflation is no less inflation when it is gilded with gold," and we have had inflation in this country just as truly as they have had it abroad where it has been of paper; and it has been rapid enough when we have had it, as between 1896 and 1920, to actually neutralize the rate of interest. In terms of real value, commodity units instead of dollars, there has been no such thing as interest during that period. On the other hand, when prices are falling and you have had appreciation of money, you have an aggravation of interest. I have here a chart showing, according to Dun's the changes in the price level from May, 1920, down to a year later, 1921. There was a rapid drop in prices in the first part of that period and since then a rise. During that period of rapid drop the rate of interest was over 50 per cent, when it seemed to be only 7.

And that, gentlemen, explains these crises more than any other thing. We are fooled by the dollar. To-day interest has vanished. The business man to-day is paying no interest. It is only money interest and not real interest; that is, it has been so for the last six months. If you take the statistics of commodity prices you will find that that is so, and that is the reason business is recovering. It is because all that helps the borrower, who is the active business man, to get on his feet. And it is all right if you can get him just back to normal, but we are in danger of its going on beyond that and getting us into a situation similar to that in 1920.

Another example of the injustice that comes from this change in the value of money is that of the widow who received in 1896 an insurance bequest which was invested in gold bonds—gilt-edged bonds—at a low rate of interest, 4 or 5 per cent, and she has been cutting the coupons and living on the income. And in 1920 what was her situation? In the case of the savings-bank depositor or Hetty Green I think it is clear that there has been no interest, but you say that surely in the case of this widow there has been; she has been having income and using it. But I want to say that she has not been having any interest either—any real interest. I will give you an actual case of a friend of mine, a woman who in 1892 received a bequest of \$50,000 put in trust, and which was invested in bonds which were supposed to be safe.

In 1920, just at the peak of high prices, I, with her, visited the trustee and asked in regard to the investments, and the trustee pointed out with pride the very "safe" investment he had made in bonds, and he said: "There has been no loss of principal except some Wisconsin Central bonds that went bad, whereby you lost about \$2,000. Otherwise the principal is intact." And when he said that I chuckled, and he saw it and said: "What is the matter?" I said, "That is nothing—a 4 per cent loss on your books. Really, this lady has lost 66 per cent of her principal." He said, "Why? I don't see it." "Well," I said, "It is so. She has got, you say, \$48,000 of the \$50,000, and you call that \$50,000 to-day the same as the \$50,000 she started with, but it is not; it takes \$150,000 to-day to equal the \$50,000 when it was put to her credit, and

if you really had kept her principal intact you would have had to reinvest out of it \$2,500 a year that she had been using, a sum sufficient, as a sinking fund, to bring up the principal to its original value, so that to-day she would be possessed of the same original purchasing power. This would require to-day \$150,000. But in order to have done that you would have had to reinvest all of her \$2,500, and that would not have been enough. In other words, she has not been having any real income or interest; she has been eating up the principal; she has now one-third of it left, for she ought to have \$150,000, while she only has less than \$50,000. Nominally, \$50,000 to-day is the same \$50,000 as it was in 1892, just as the Polish principal that was returned, 100,000 Polish marks, was nominally the same; but really, in terms of clothes, in terms of things that you can wear or eat or use in any way, it is only one-third. So the lady was beguiled into eating up two-thirds of her principal and receiving no income." He said, "It is not my fault." I said, "No; of course it is not your fault, it was the fault of the dollar; but it has made a big difference to her."

Another example will show "where the money goes to." I have talked about losses, but there are theoretical offsetting gains; when the creditor loses the debtor gains, and when the debtor loses the creditor gains. Let us suppose, to take the typical modern debtor and creditor relationship, stockholder and bondholder, we consider a company which was established before the war with \$100,000,000 of stock, par value, and \$100,000,000 of bonds, each yielding, let us say, 5 per cent, so that the stockholders received \$5,000,000 a year normally before the war in dividends and the bondholders received \$5,000,000 a year in interest, a total of \$10,000,000 divided equally between these two classes of investors. Now let us see what havoc the war has wrought to that company. The war cuts the dollar in two; in other words, doubles prices, we will say, just to make the example very simple. Then, at the end of the war how do we come out? If it is a typical company, so that its product has risen in price with the general inflation of prices, it will be receiving gross income double what it did before, and its expenses will be double what they were before, so that the difference between its gross income and its net income will be double what it was before, and it will therefore not have \$10,000,000 to distribute between the stockholders and the bondholders, but \$20,000,000; but this \$20,000,000, which is, of course, the same value in actual purchasing power as the original \$10,000,000, will no longer be divided equally between stockholders and bondholders, as was the situation before the war; on the contrary, the bondholder is tied by his contract to 5 per cent and he therefore receives only \$5,000,000; that leaves all the rest to the stockholder, who will therefore receive \$15,000,000. The bondholder nominally gets the same as he did before the war, \$5,000,000; in actual purchasing power he only gets half as much. The stockholder nominally gets three times what he did before the war, \$15,000,000, instead of \$5,000,000; but in actual purchasing power, when you allow for the inflation, it is not three times as much but only one and a half times as much. In other words, the bondholder has lost 50 per cent in real income and the stockholder has gained 50 per cent. In still other words, the unstable dollar has picked the pockets of the bondholder for the advantage of the stockholder. So that is where the money goes.

Now, let us take another example where it works the other way. Suppose that during this period the prices had fallen and the dollar had doubled instead of the opposite; suppose we start off again with \$10,000,000 equally divided into \$5,000,000 for the stockholders and \$5,000,000 for the bondholders, but on account of the doubling in value of the dollar the total to be distributed at the end of the period of time we are considering, instead of being \$10,000,000, is \$5,000,000. Now, who gets the \$5,000,000? Will it be divided equally between the two? No; the bondholder is entitled under his contract to all the \$5,000,000. There is, therefore, nothing left for the stockholder. In other words, the stockholder has been wiped out by the appreciation of the dollar.

Mr. STRONG. How much longer will it take you, Doctor?

Doctor FISHER. It will take me some time yet.

Mr. STRONG. Then, without objection, we will take a recess until 2 o'clock this afternoon.

(Whereupon, at 12.15 o'clock p. m., the committee recessed until 2 o'clock p. m.)

## AFTER RECESS.

The committee reconvened at the expiration of the recess.

Mr. STRONG (presiding). Professor Fisher will now resume his statement.

## STATEMENT OF PROF. IRVING FISHER—Resumed.

Professor FISHER. I was indicating this morning how, when prices were rising to double what they had been, the effect would be to take 50 per cent from the bondholder and give it to the stockholder, in a typical business such as I described, where originally the two classes had equal incomes; and that when prices dropped to half what they were, that the result would be that the bondholder would gobble it all up; he would receive nominally the same \$5,000,000 in actual purchasing power, but it would really be double what it was in value, and as that would be all there was to distribute, there would not be anything for the stockholder at all, and he would be ruined.

The result, then, of a study of these changes in price levels and its effects shows that it is a means of transferring wealth from one set of pockets to another set of pockets, which divides the community into two groups, whom we might describe as the creditor and creditor-like group on the one hand, as typified by the bondholder; and on the other hand the debtor and debtor-like group, as typified by the stockholder.

You see who belong to these two groups and see how actually they are affected. In the first group, the creditor and creditor-like group are not only the bondholders, but the savings-bank depositors, the widows and orphans who are beneficiaries of estates which under the law are required to invest in so-called safe securities, mostly bonds; colleges and hospitals and institutions of that sort; and, to a less degree, the salaried man who, while his contract is not made definitely and specifically at so much a year for a definite time, nevertheless is taken to be continued at a given figure and is so continued until there is a tremendous pressure to change it. This was the case of Congressmen, whose salaries remained a long time at their old level, when the price level changed, and finally were adjusted, and they have, I understand, been adjusted twice in this period between 1896 and 1920. You would know more about that than I, but in each case there was a lack of what—

Mr. DALE (presiding). I think, for the purposes of the record, we had better have that appear correctly. They have not been adjusted but once, have they?

Mr. GOLDSBOROUGH. That is all.

Mr. KING. The time has come for another adjustment.

Mr. STRONG. And no matter what adjustment is made, these people in Washington will get the salary.

Mr. STEAGALL. You are right.

Professor FISHER. Mr. Wolff has worked out exactly how much you have lost and will bring that up later.

And then the wage earner is the loser of purchasing power when prices are high; that is, he is a sufferer from the high cost of living, because wages in general rise more slowly than prices. I have here a chart which shows this lag. It is a chart of the average weekly earnings in New York State factories as compared with retail prices of food in the United States.

You will notice [exhibiting chart to the committee] that when the retail prices of food go up wages go up also, but not as fast, so that the gap between the two increases almost as long as the rise continues. Then when the fall comes the opposite occurs.

Mr. DALE. If you will pardon me, have you finished your preliminary statement?

Professor FISHER. No, sir; but perhaps you had better ask that question.

Mr. DALE. The question that occurred to me was whether that chart as you had it there is up to date.

Professor FISHER. No; this is up to the end of 1920.

Mr. WINGO. He was using that as an illustration.

Professor FISHER. This is an old chart I have. I have not tried to draw a chart up to date.

On the other side, among the debtor and debtor-like classes are the stockholders, the private debtors, the individual producers, who carry on their own

business at a profit; and the largest class, as has been noticed, is the farmer. A farmer, as you have said, is in that position—he is a debtor rather than a creditor, and he takes what is left after he pays his debts. When prices are rising, he gains, for a time at least; when prices are falling, he loses.

If we apply these simple facts to the history of recent years, we shall see that they are verified throughout, and the people in general realize who is getting the money even if they do not understand the reason for it. When prices are falling, therefore, the people realize that the lenders are getting it; and it was the long fall of prices following the Civil War and ending in 1896 which really brought this subject into politics and led to the Bryan campaign, which was a campaign of protest against the long fall of prices, and in behalf of the farmer and debtor classes generally, who were injured thereby. The cry of the public, who had only a vague idea of this as a change in the purchasing power of the dollar, was against the "gold bugs of Wall Street" and the "bloated bondholder" and the "grip of the dead hand"—you heard those phrases in the campaign—because the people realized these holders of property had strangled business and were destroying profits, so that the farmer and enterpriser of business could not make a living. On the other hand, when prices were going up, as they did between 1896 and 1920, the public also realized who was getting the money, although they did not have the faintest idea of why; they realized from the statements of the big corporations that there were excessive profits being made and, consequently, we coined the word "profiteer" I think it came into use during that period. It symbolized the popular notion of what was happening and whose fault it was.

That notion was half right and half wrong; it was right to the extent that the profit taker was getting abnormal profits; it was wrong to the extent of blaming him for doing it. As a matter of fact, it dropped right into his lap and he could not help it. The farmers were prospering and the merchants generally were prospering. I remember during that period talking with the president of a lumber concern in Rochester, N. Y. who had conducted a conservative business for a generation and who was proud of his reputation for fair dealing. He did not like to be called a "profiteer," and he made up his mind he would be content with his ordinary rate of profit. Therefore, he fixed his prices below the market and offered his lumber for sale at that price. But prices were going up so fast and the demand for lumber was so great that the price he thus set was all out of tune with the prices of his competitors, and he soon found that what was really happening was that they were buying from him and reselling to the public, which was not getting any benefit from his liberality; and that even people who had sold lumber to him originally were on account of this great rise in price, buying it back from him and selling it over to him as time went on, and to others. So that he decided he would have to be a "profiteer"!

In other words, when prices are rising, what we call "profiteering," though imputing blame, is a necessary part of the situation.

By means of price fixing you can squeeze out some of this surplus profit, and that was attempted by Mr. Hoover when the price-fixing policy of the United States was established, which was much more practical in that respect than the price-fixing policy of other countries.

This last drop of prices has caught the farmer unawares. He had loaded up during the era of prosperity with big debts and mortgages, and suddenly came this deflation, which began in 1920 and resulted in the fall of wholesale prices about 45 per cent, and of a larger fall even in the case of farm produce, which are more widely fluctuating than the average prices. So that here the farmer was left with obligations in terms of dollars contracted when dollars were small payable when dollars were large, and many of them had to take the bankruptcy act, and all of them had to suffer enormously, and the result had been disastrous to us all.

The next point I want to stress is, that, whereas, in the first instance these changes in the tides of ownership of wealth and income from one set of people to another merely cause a shift of ownership of wealth and income from one set of people to another, in the long run they hurt everybody.

You might at first conclude that the farmers' interests lay in inflation, and that the thing to do was to make prices rise all the time. That is a wrong conclusion, because prices can not keep on rising and they will sooner or later be a recession in which they will get caught. Moreover, even during the rise in

price, the result is people produce wastefully and discontent is created over the high cost of living leading to violence and destruction of property.

The final result of inflation is a lowering of production.

The same is true of deflation. When prices are falling what happens at first is, as we have seen, depression of trade. If this continues long, mortgages have to be foreclosed; the farmer loses his property, and somebody takes possession who is not a farmer; the corporation, such as I have described, has to go into the hands of a receiver and is taken over by a lawyer instead of an experienced business man; and other businesses are likewise foreclosed and taken possession of by the bondholder, who is fitted only to be a silent partner and is not equipped to lead in the industrial world. The consequence is that business gets into the wrong hands, when you have a rapid fall of prices; it is taken over by those who are not best fitted to guide it, while those who are best fitted are branded as having failed when really it was not their fault. They are discredited and thrown out, and we have inefficiency resulting through this transfer of management. There are other things that might be said that would substantiate this conclusion—that deflation as well as inflation lessens production. Thus in addition to the first conclusion there is a second. The first evil of unstable money is, it will be recalled, to unjustly transfer wealth from one set of pockets to another—from those to whom it really belongs to those to whom it does not belong, first in one direction and then another. That is social injustice.

The second evil, which we have seen, is that there is a net loss of production from which, in general, we all suffer.

Apply all this to the wage earner, for instance. I think you will see at once that when prices are rising he loses because of the high cost of living, which outruns his increased wages, and when prices are falling, while nominally he gains through increase in purchasing power of his wages, he really in the end loses by being thrown out of work, because the man who is supposed to get profits for conducting business can not get them. After having his profits wiped out, he stops business and locks his door, and the laboring man has not anything to do, and you have to make a readjustment while the factories are closed and everybody is idle, even those who happened to be, in the first instance, in the position of gaining.

The laboring man so far is the victim either way, and the average man is the victim either way. There is nothing to be gained for society, and in the long run there is scarcely anything to be gained by any class in society by continuing inflation or by continuing deflation. They are both bad. The maximum gain for society consists in avoiding both and having a stable price level.

And that leads me to say that you can not cure inflation by deflation, or cure deflation by inflation. You simply, if you try that, jump out of the frying pan into the fire. Two wrongs do not make a right. You will remember that in 1920 we were all talking about deflation; we thought we must have it, and the resolution was passed in the United States Senate demanding to know of the Federal Reserve Board why we did not deflate, and as a consequence of that psychological demand all through the country that we must deflate, deflation took place. Well, it was a terrible mistake. It has smashed business, interrupted production, and done damage to the United States to the tune of billions of dollars.

And now people talk about inflation again; they are tired of deflation, and they say, "What we want is inflation"; and in that way we are apt to seesaw between one and the other, instead of getting onto a stable price level.

Reginald McKenna, the president of the largest bank in the world, in London, the London City and Midland Bank, who was once the chancellor of the exchequer, and who was over here addressing the American Bankers' Association about two months ago, you will recall, on the interlarded debt, said that it is a great mistake to try eternally to cure inflation by deflation and deflation by inflation; what we wanted was to avoid both and get into a condition of stability.

These alternations in business of so-called prosperity and depression are primarily due to these changes in price level. If you will analyze hard times and good times, so called, and prices and depressions, you will find they always coincide with changes in the price level. There is Dun's Review, which shows Dun's index number of prices. That drop [indicating on Dun's Review], that rapid descent of prices from May, 1920, to July, 1921, was a period of hard

times, a period of depression, a period of unemployment, a period of failures, a period of loss of profits, a period of great distress to the farmers.

The previous period was a period of abnormal prosperity, but with the high cost of living, which caused so much distress to the consumer—

Mr. WINGO (interposing). What is that paper you are referring to?

Professor FISHER. This is Dun's Review, December 9, 1922.

If you will give me a chart showing long-continued falling or long-continued rising price levels, I can tell you, without knowing what the dates are or anything about the history of the time, whether it was a period of high profits or a period of low profits, whether the bondholder or the stockholder was prospering and what stage of the business cycle you are in. Anyone can.

Germany is in a period of great nominal prosperity, because of rapidly rising prices. The result is that men like Stinnes are getting enormously wealthy, and they are doing it at the expense of the laboring men, who, as I explained this morning, had their wages increased only tenfold when the cost of living was increased twenty-fivefold. It is really indirect taxation of the laboring man, this enormous inflation, and of the salaried man, who bears the brunt of it, but it does not seem to him to be the Government that is doing it to him. Germany has had this so-called prosperity—and remember that the word "prosperity" represents big profits; it is a one-sided proposition; it does not represent prosperity for everybody.

When we talk about good times and bad times we are talking from the point of view of the stockholder and the man who makes profits and gives employment. Germany seems superficially to be a very prosperous nation, because prices are rising rapidly—large profits are made—and therefore those who are making these large profits expand their business and do as much business as they can and employ all the laborers they can, and there is almost no unemployment. While inflation has been going on in Germany they have had full employment, but the laboring man has lost through the high cost of living.

When there was talk, as you remember, in November, 1921, of a moratorium for Germany, it sent the mark up right away speculatively. But that arrested the price level in Germany, and it began to fall instead of rise just for a short time, and immediately there was almost a panic. It reversed the situation. Instead of having this general overprosperity, Germany had a situation similar to that in America from the middle of 1920 to the middle of 1921.

So if you want to know whether business is good or bad the master key—although, of course, there are other factors in the business cycle—the master key to the business cycle is the change in the value of the dollar—the change in the price level.

So if you stabilize that you get rid of the major part of these fluctuations and prevent these catastrophies to the laboring man and the farmer and all of us.

I have spoken so far of three evils from an unstable money: (1) A transfer of wealth from where it belongs to where it does not belong, therefore offending our ideas of special justice; (2) a decrease of production, and therefore interfering with the prosperity of us all; and, (3) the business cycle, a succession of "crises" with "panic" and "depression of trade," "liquidation," "booms," and "crisis," etc.

So much for the evils which come in terms of money. But those are not the only evils, or even the major evils; they are just the primary, basic evils, from which other evils come. Besides the primary set of evils that I have thus far described, there is a secondary set in industrial discontent, or, I will leave off the word "industrial," and say simply discontent in one form and another. And this discontent is made all the worse because people do not appreciate the cause. If the farmer knew that it was the unstable dollar that hurt him; if the laborer knew that it was the unstable dollar that hurt him; if the salaried man, the Government clerk, and the teacher and the rest who are salaried men realized that it was the unstable dollar that hurt them, the kind of complaint that we would have would be quite different. But they do not realize it because, as I said, at the very start, we live in a moneyed atmosphere, and we always think that the change in prices has to do with commodities, instead of money. So, what happens is this: That while they feel the pinch and do not know the real cause, they personify the evil, and try to find somebody that they can hang to the lamp post.

When prices are falling, for instance, you have the discontent of the farmers and of the debtor classes, and they blame it on Wall Street, J. Pierpont Morgan, and "the Goldbugs," as they call them, or "the bloated bondholder." And

what do they demand? They say, "The trouble is we do not get our money cheaply enough. Let us have the Government give us money for nothing; lend us all the money we want," and that expresses itself in what was called "populism" and other forms of discontent, and once resulted, as I said before, in the Bryan campaign.

When prices are rising, the discontent expresses itself as a complaint against "the profiteers," and in all kind of restrictions which are made by law to prevent the profiteer from overcharging. These do not have any very large effect—not even to the extent of 5 per cent—on the price level or in throttling the profiteer, though it may have some. But vengeance is reaped on an innocent man in either case. We are fresh from this campaign against the profiteer, and many people still feel resentful. But, as a matter of fact, human nature was just the same then as at any other time, and there is no more selfishness in the effort to get all you can when prices are rising than it is to get all you can when prices are falling. But there is more opportunity given to the profit taker when prices are rising. So you hate the man who gets it when you know it comes out of your pocket. But this hatred is not just; the trouble is simply that we are gambling in the dollar all the time and some people win while other people lose, and when we lose and others win we are angry at those who win. We should find fault not with the man who wins, but with the game that produces such an unfair gamble, and one that we did not deliberately undertake, because when we make contracts we are not doing it as when we cast dice; we are doing it with the assumption that a dollar is a dollar, and we go on that assumption until we discover, to our grief or profit, as the case may be, that it is not.

So the secondary evil just mentioned as coming from the unstable money is discontent; it expresses itself in populism, when prices are falling and in a similar movement which is going on to-day in the West, which is a re-crudesence of populism and all kinds of dangerous proposals.

It expresses it when prices rise in I. W. W.-ism and socialism.

I remember talking on the subject in New Haven before the war, and at the same dinner at which I spoke a socialist spoke. I explained my idea as to the high cost of living as being primarily due, at that time, to gold inflation. This man—I won't mention his name; he is nationally known—then got up and ascribed it to "capitalism." He said that the only remedy was to wipe "capitalism" all out. Afterwards he took me off in the corner and said: "Professor Fisher, I realize that you are perfectly right in what you say. But we socialists can not help making hay while the sun shines. This high cost of living is simply making socialists all over the world very fast." And one thing he said I will never forget—"It is making socialists very fast in Germany."

The war broke out about a year after that, and I want to show how far-reaching the effects of unstable money are. I have spoken now of the two great sets of evils that come out of the unstable money. The money evils are economic evils and the social evils are evils of discontent and class hatred. But I want to show that it has a finger in every pie. I have no doubt that the unstable money had something to do with bringing about this great World War.

I think it is even possible that, if we had a stable money the World War would not have happened, or not have happened as soon as it d'd. That is not saying, of course, that unstable money was the only cause or even the principal cause. I do not think it was; I have no such notion. But it is an element there, because you remember the Kaiser's *bête noire*, his great spectre or nightmare, was socialism; that was the one thing he was afraid of, a revolution in his own realm. And it is an old trick of the autocrat to heal up any such breach in his own realm by getting up a war on the outside. Then they all get together. So, I can well imagine—of course, this is speculative—that he was less averse to war than he otherwise would be, when he realized that it would unify the sentiment in his own realm, and when he was afraid that that sentiment would ultimately mean his dethronement through socialism.

So I believe unstable money was a factor in precipitating the war by generating this discontent in Germany and strengthening the socialistic party, of which the Kaiser was so afraid.

On the other hand, it was a factor in making Germany stop the war. I was talking with Major Hadley, son of President Hadley of Yale, who was at Coblenz, shortly after the armistice. He is a very keen-minded young man, and he took occasion to find out what was the reason for the sudden cave-in of

the German morale. He found that the biggest factor was their anger at "profiteering"; they were stirred up because they had only a soldier's pay in depreciated marks, their families were starving at home; they were risking life in the trenches. Therefore, they said to themselves, "What is the use of our fighting for our country, when back of us are people who take no risks, but are making money out of the war? We are not going to fight for the enrichment of a few."

The socialistic propaganda then began to grow particularly fast with the soldiers, who were told "you have evidently been duped, you are fighting the game of the capitalists and had better stop." That weakened their morale and explains, as one factor at least, the sudden cave-in.

I am simply showing how big a factor is this factor of unstable money. This has, as I have said, a finger in almost every pie of human history.

The discontent sometimes come to a very acute stage. As you know, before the war, we had bloodshed and food riots over high prices; the ignorant working women who went to the corner grocery and found that the man charged higher prices than he did the year before and smashed his windows, thinking it was his fault; so we had "food riots" during the war all over the world, in Tokyo, Berlin, and even in the United States. We had a revolution in some places.

There is an old saying among the French, who had the very experience at the time of the French Revolution we are having, where, of course, the same causes produced the same effect that "After the paper money machine comes the guillotine." The French Revolution followed a period of paper money inflation, and partly as a consequence, the same thing happened in Russia a century later as well as in other countries. The Bolshevism that developed there was partly due to this same psychology I have described in the German trenches. The Russians revolted from the Czar and had their own government, partly because of the depreciation of the ruble. Of course, they did not analyze it that way. They simply hated the people who were "raising the cost of living" on them and decided they would take things into their own hands. And here, again, I do not mean to say that that was the only cause; it was not, by any means. I do not mean to even say it was the principal cause, but it had a "finger in the pie."

Lord d'Abernon, whom I have quoted before as one of the men in Europe who knows this subject from A to Z in Germany and in England, said in a speech in the House of Lords during the war that he believed that 90 per cent of the Bolshevism in the world at that time was due to unstable money. I would not go as far as that. But I would say, so far as you can put a thing of that sort in any percentage, that more than 50 per cent of the social unrest which we have seen in this world, expressed in populism, I. W. W.ism, socialism, Bolshevism, and class war and feeling, is due to unstable money; and that if you stabilize the dollar, you would solve, not by any means, all of our great pressing problems of discontent, but solve something like half of them; and all this can be done by a stroke of the pen, by the passage of this bill.

I think, inasmuch as Professor Rogers has to go back to Ithica and has taken the trouble to come down here further to testify, and as I have reached the point where I am ready to take up the consideration of the bill itself, I had better withdraw, and let him make his statement.

Mr. DALE. Do you plan to go away to-day, Doctor Fisher?

Professor FISHER. No, sir; I will stay as long as you like.

(At this point Prof. John H. Rogers addressed the committee, and his statement will be found following that of Professor Fisher.)

Professor FISHER. I have been very much interested in these various questions that have been asked Professor Rogers, and I think all of those questions are answerable and, in fact, have been answered in the appendix of my book, and I shall be only too glad, if the questions are asked of me at the close of my testimony, to go into them in detail.

Mr. WINGO. I would say I had in mind that possibly you would hear the questions I asked Professor Rogers and that you would make answer to them when you resumed your statement.

Professor FISHER. Perhaps to some extent, and, if not, I hope you will take it up with me after I finish.

In the first place, I gather that there is some little confusion in the minds of some people here, due to the fact that we had to have Professor Rogers testify before the provisions of the bill had been explained.

The object of the bill is, of course, not to compensate through an index number for an actual change in price level from time to time, but to prevent changes in the price level, so that instead of having such a picture as I showed you in Dun's Review a short time ago, where the price level is going up and down in waves, as it always has, after the passage of this bill the price level will be substantially horizontal and the purchasing power of the dollar will be substantially horizontal. So if you once have this system going, it is not justifiable to ask what would happen when prices are rising and falling, because prices in general will not rise and fall. Each individual price will dance around just as much as ever, but the average price level will be horizontal instead of upward or downward, alternately.

I think what Mr. Wingo said is perfectly true, that we are threatened with inflation, and that is the reason, to my mind, why you should take this bill under very serious consideration, because you now have the opportunity to take this inflation in hand at a time when we have had a fairly stable price level for nearly a year. This inflation has only been going on at the rate of 1 per cent a month during the last year. That is a high rate, if you like, but it is not anything like what it is going to be, I am afraid. Of course nobody knows what is going to happen in the future, and there may be all sorts of things to interfere, and I do not wish to record what I say as a prophecy. But I have not any objection to saying that it looks now to me as though we were in for a serious period of inflation, and if so, we are going to pay all kinds of penalties in social injustice, in discontent, in class warfare, in wrong legislation and in something enacted instead of this bill if you do not pass this bill. You are going to have proposals, and there are many of them to-day, which I believe are unsound; and it is up to you to find a proposal that is sound. If this is not the one, if you get something that is better then let us by all means get it. I am interested not so much in this particular plan as in finding some method of settling this difficulty, because it is facing us now. It is not something you can take years and years to consider without, in the meantime, suffering greatly, and we are just now on the brink of some suffering that we will go through in the next two or three years if you do not pass this bill or something to take its place to stabilize the dollar. It is imminent; it is important; something should be done at once. That is my opinion about it.

I have taken all this long time to try to impress upon you the importance of this bill, because I believe if you once have that at heart, as I have gradually got it at heart through 20 years of study, that you will do the rest, and I shall be only too happy to have you try to pull this bill all to pieces and improve upon it, if you can, or to substitute something else, provided only you go right straight after that object of stabilization; and if you do that you will have performed for this world something far more important than the passage of the Federal reserve act or any financial legislation that has hitherto been passed. And it requires no police power, no organization, no investment of millions of dollars, nothing comparable to the trouble in starting a new banking system; it is a very simple thing; it simply requires two bureaus in the Government, and you can utilize the bureaus that now exist. You can take as "the computing bureau" the Bureau of Labor Statistics, which now makes index numbers, and let it calculate the index number, and you can take the Bureau of the Mint, which now virtually buys and sells gold, and let it do the same under this bill.

Let us see what this bill aims to do. At present we have the gold standard in the sense that a dollar is redeemable in a fixed weight of gold, 23.22 grains in weight of pure gold. We call that the gold standard. Sometimes people ask me am I not proposing to abandon the gold standard. I always answer "no." I am trying to "put the standard into the gold standard." We now have a gold standard that is a misnomer; it is no standard. It is not a standard of value; it is a standard of weight. It is no more the standard of value than if you had a silver, lead, or any other standard.

It was said in this cross-questioning just now that gold has shown itself to be more stable than any other standard, but that is not so.

Mr. WINGO. I said that is the contention.

Professor FISHER. The facts will show that the value of gold has fluctuated quite as much as other individual commodities. In my book here I have compared the relative stability of a number of the different commodities, and I find that gold is not any more stable than silver, not any more stable than almost any of these things compared, eggs or almost anything in fact, brussels carpet proves to be a more stable commodity than gold. But we can standardize or stabilize our dollar so that the gold standard will really be a standard.

and that is the object of the bill. It is not absurd, when you stop to think of it, that we have seized upon the dollar as a unit of weight. When you are measuring length, you want to get a unit of length because you have length to deal with, but you do not take as your yardstick a stick that weighs a definite amount. If you did you would have all kinds of different yardsticks, differing in different places and different times.

Is it not absurd to have a dollar also a unit in weight, when it is not intended to measure weight, but is intended to measure purchasing power. It is used in commerce in buying and selling, by debtor and creditor for lending and repaying; and we propose that the repayment shall be just. What does that mean? It does not mean that you shall return a given weight of gold or a given weight of anything; it means that you shall return to the lender something that is a just equivalent. Value is involved in there, and value is statistically increased by an index number average purchasing power.

If I lend you a thousand dollars and you return it to me 10 years hence, I want to know that I shall have an equivalent thousand dollars; I am not interested in whether it is the same weight of gold. What I want to know is that it will buy me the same average of the necessities of life, things I spend it for. I am not spending it for gold. Scarcely any one wants gold, except the dentist and the picture-frame maker, and the jeweler, and the women who use gold jewelry—it is an infinitesimal fraction of our expenditures.

History does not show that the gold standard was ever chosen because it was stable; you can not find anything in regard to it in anthropological investigation or anything of the sort; that is a myth—the idea that the gold standard was selected out as distinct from the silver standard, the iron standard, the shell and the other standards that were used at various times in former history. That is not so.

Mr. NELSON. Why is it selected?

Professor FISHER. It was selected because it was a good medium of exchange. When we selected the gold standard it was in the days before contracts were made, before there were debtor and creditor relations, before this problem that we now have to deal with arose. This problem rises out of the fact of credit in modern society. The fact that we make a contract, and in the interim we want to have the same standard last, so that the dollars that are the same value as the dollars that were loaned.

But when the gold standard was chosen no such contracts were known. Now we have contracts extending over a hundred years. We have sometimes contracts in ground rent that will last 999 years, and yet we have not any idea what the dollar is going to be worth at the end of that time. We just gamble.

We forget that gold was chosen simply because it was very durable; it was almost indestructible; it was very light in weight and handy to carry, and it was easily devisable as compared with platinum, for instance. It had all those physical characteristics that made it good as money from hand to hand, and I am not proposing to give that up in the least. This bill does not destroy its function as a circulating medium—e. g., for international shipments—it simply rectifies its function as a standard of value where it has fallen down.

In other words, because our ancestors a thousand or two thousand years ago and more chose a good medium of exchange we now find ourselves saddled with a bad standard of value.

You can not take any one commodity as a standard and take a given amount of the weight and have it a standard of general purchasing power. You have got to change that in some way. Why? You could theoretically have your dollars redeemable in a bunch of miscellaneous goods, but practically you can not do that. My proposal is virtually to achieve that without giving up the gold standard, but merely rectifying the gold standard, so that the dollar will be a unit of purchasing power.

We now have a dollar which is fixed in weight, and therefore changeable in purchasing power. What we want is a dollar that is fixed in purchasing power, and so variable in weight.

Before I go into the details of the bill I would just like to ask you to ask yourself this question: What would happen to the purchasing power of the Mexican dollar or peso if they should double its weight? We said a few minutes ago if the mark were redeemable in the same amount of gold it was originally redeemable would it not immediately come back to power? Of course it would. Well, would not the Mexican peso if it were changed to the American dollar have the same purchasing power as the American dollar? The Mexican dollar now is half the value of ours. On the other side of us, across

the Canadian border, they have the same dollar as we have. Suppose Mexico should follow the example of Canada, just as a practical proposition, and tomorrow Mexico would say, "To avoid confusion," or for whatever reason, "we are going to have on this continent just one dollar of equal value in Canada, Mexico, and the United States." Immediately prices in Mexico would be cut in two, and immediately the purchasing power of the dollar would be doubled. Is there any doubt about that? Could you suppose that Mexican dollars would continue to buy only the same amount as they do now if you had twice as much gold in them?

And now let me ask you to ask yourself another question: What would happen if Canada for some unknown reason should decide to imitate Mexico and adopt a Mexican dollar; in other words, should cut their Canadian dollar in two. At once Canadian prices would double. If that is true, on both sides of us, is it true of us, is it not?

If you admit that Mexico could cut its price level in two and double the purchasing power of the dollar, and that Canada could by cutting its dollar weight in two, would cut its purchasing power in two and double the price level, then America certainly has the same power. So that we have reached the conclusion that if America should double the size of its dollar the price level would be cut in two or the purchasing power of the dollar would be doubled. On the other hand, if we halve our dollar and make it a Mexican dollar our dollar would then buy half as much, and our price level would be doubled.

Of course, we do not want to do such foolish things. If we did, we would have the evils we have referred to. But the point is that if we have that power then we have the price level in the hollow of our hands; we can do anything we want to it; we can make it go up or down. And we can prevent it from going up or down. That is what we want to do, and that is what this bill proposes to do. It does it by nipping in the bud any incipient rise or fall of prices. It is true it does not absolutely stabilize, but it would probably really never allow the price level to vary more than 1 per cent instead of varying as it has hundreds of per cent and producing all the evils that go with such changes.

The idea of the bill is simply this: Let us start out with a certain price level as a standard. The selection of the level is an independent problem; that is not a part of what I am going to speak about. I shall merely say that that level presumably ought to be somewhere near what it is now.

Suppose, then, we take the present level for illustration, and agree that this level shall hereafter be the standard. We are going to prevent in the future a great rise in prices; we are going to prevent in the future any great fall of prices. In other words, this bill aims to prevent inflation or deflation; that is all there is to it.

We take the present price level and call it 100 per cent. In two months the computing bureau, one of these two bureaus in the Government, assesses the situation; it calculates the price level. Suppose it finds the price level is then not 100 per cent but 101 per cent. What does that mean? It means that there is a deviation above par of 1 per cent. The computing bureau then sends a note to the Bureau of the Mint, reporting this figure of 1 per cent, showing inflation is beginning. In other words, there is a deviation of plus 1 per cent of our standard price level; the price level is a little too high or the dollar a little too low. The dollar is a short dollar; it only buys 99 per cent of what it should. We can call it even a short-weight dollar. This is remedied by the mint as soon as reported. It puts 1 per cent more gold into the dollar and brings it up to par; for if what I said about Mexico and Canada and the United States a moment ago is true, if it works for a big change, it works for a little change.

But, of course, in the next two months something else may happen, and instead of the price level immediately coming down to par and staying there, we may find that for any number of thousands of reasons at the end of another period of two months—we call that the "adjustment period" in the bill—the price level is still 101; it has not gone down. What we have done in raising the weight of the dollar has tended to pull it down, but it has not fully succeeded. It is still 1 per cent above par. The same remedy is applied as soon as the mint receives from the computing bureau the report that the deviation is still 1 per cent. We simply repeat the dose. The Bureau of the Mint immediately again adds 1 per cent to the weight of the dollar.

Then, at the end of another two months, if the price level still persists obstinately in staying above par, we load it again, and likewise we load it

again and again, as far as necessary to bring the price level back to par, until the dollar, instead of weighing one-twentieth of an ounce, weighs half an ounce or a ton, whatever is necessary to bring its purchasing power back to par. Of course, it would not practically differ very much from the 23.22 grain; it might go up to 25 or 30.

Then, if it works the other way—if at any time the Computing Bureau finds that the index number stands at 99, that means that deflation has begun; and to offset that and prevent any continuation of it, to rectify it, we immediately unload the dollar by 1 per cent, which tends in the opposite direction, and, if that does not suffice, in another two months we will still discover what is still necessary and load it again, and so on, until it gets back to par.

So it is just like steering a bicycle or an automobile. If it deviates a little you turn the wheel slightly and if that is not enough you turn it some more, or if too much you turn it back, and keep the automobile in pretty nearly a straight line. Nobody can steer a machine with absolute straightness; but it is amazing how straight you can steer it if you only touch the wheel a little here and there; and that is exactly what we mean by these two bureaus, by trial and error every two months.

Mr. WINGO. It is possible, under your plan in a few years for us to have the Bureau of Mint computing at three different weights of dollars?

Professor FISHER. No, no; there will never be any such thing as that.

Mr. WINGO. You see what I am driving at?

Professor FISHER. You are thinking of the dollar as a real coin. Now, as a matter of fact, our dollar to-day is not a real coin; we do not coin the dollar; we coin the eagle and the \$20 gold piece, and we could get along without even coining them; we could get along with our present gold bars. A thousand-dollar gold bar is simply a bar that weighs 23,220 grains, and you can consider that such a bar has imbedded in it, so to speak, a thousand coins welded together. One of the provisions in this bill is that we stop the coinage of gold hereafter and have only gold bars, as such. As I say, a thousand-dollar gold bar is one that would weigh a thousand times 23.22 grains.

That would be the number of dollars in that bar—1,000—at the beginning of the system. But if the weight of the dollar changes and is increased 1 per cent, that would mean that in this bar, instead of there being a thousand dollars there would only be approximately \$990, and it would simply amount to this, that this bar is not to be recoined; there would be no coinage; but it would be bought and sold by the mint on the basis of a different price. To say that the weight of the dollar is 23.22 grains (the present weight of the dollar in pure gold) is exactly the same thing as to say that the price of gold at the present is \$20.67. Take an ounce of gold. How many dollars does it contain; how many dollars could you coin out of it? That is found by taking the number of grains in the ounce, which is 480, and asking yourself how many times is 23.22 contained in 480. How many dollars are in the 480 grains, each dollar being 23.22? If you divide the 480 by 23.22 the answer is 20.67, which is the number of gold dollars in an ounce gold bar.

To leave the 67 cents out, suppose we call it \$20, which it is approximately. To-day gold is \$20 an ounce, which is the same thing as saying the weight of it is \$20 an ounce. The two things mean exactly the same thing.

You gentlemen must be naturally quite as familiar with this as I, but it is astonishing how many people have not stopped to think that the fixed weight of a dollar is the same thing as the fixed price of gold.

I remember talking with my dentist some years ago in New Haven, and just for fun, I said, when we were discussing the high cost of living, "I suppose that you suffer from the high cost of living just like the rest of us?" "I should say I do." "I suppose it has affected the price of the things you buy?" He said, "Certainly." "It has affected the prices of your tools and the supplies used as a dentist?" He replied, "Certainly." "Has it affected the price of your gold?"—I meant that as a joke, but he took it seriously, and said, "Well, I do not know. I will look it up." And before I could stop him, he sent his clerk into the next room to find out. She came back and said, "Doctor, we pay just the same for gold as when you started in business 30 years ago." He said, "That is astonishing. Gold must be a very stable commodity." I said, "It is just exactly as astonishing as that the price of a quart of milk is still two pints of milk." He said, "I don't get you." I said, "What is a dollar?" He said, "I don't know." I said, "That is the trouble; a dollar is evidently one-twentieth ounce of gold, and naturally an ounce of gold is worth \$20. If you change the weight of a dollar from one twentieth to a

fortieth ounce, then of course the price of gold will change from \$20 to \$40 an ounce. It will be just reciprocal."

So that in this bill the provision for changing the weight of the dollar is nothing more nor less than a provision for changing (the opposite way) the price of gold. Now we have a fixed mint price of gold. Anyone getting gold out of the ground in Alaska, Colorado, or importing it from South America, can go to our Government and sell this gold at the fixed rate of \$20.67 an ounce, receiving gold certificates. This has been the price ever since 1837, when we made that standard and fixed the weight of the dollar at 23.22 grains.

So that the price of gold at present never varies, and if you like, that is an argument in favor of this bill.

Is it not absurd to make people believe that the value of gold has not changed? Of course, the value of gold, as I have said earlier to-day, during the war has been cut in two, and yet the price of gold has remained just the same—\$20.67 an ounce. And you may put the whole thing in a nutshell, by saying that just because we artificially and arbitrarily fix the price of gold at \$20.67 an ounce and say, "We will buy and sell it at that rate and never vary, just because we are so dogmatic and arbitrary about it, supply and demand takes revenge. Supply and demand, which ought to be free to change the price of gold just as it changes the price of silver, will take revenge by changing in the opposite direction the prices of everything else; and the reason why the price level goes up is because we won't let the price of gold go down; or when the price level goes down, it is because we won't let the price of gold go up. This bill is simply to release, if you like, natural supply and demand, and to authorize Uncle Sam to refix the price of gold from time to time according to what it is worth. If gold has lost its value, mark it down; and if gold has increased in its value, mark it up.

Mr. STEVENSON. Right on that point, what effect will it have on international exchange?

Professor FISHER. If you do not mind, that comes in a little bit later.

Mr. STEVENSON. I thought you had already declared what was the purpose of the bill.

Professor FISHER. If you do not mind, I think we will get along faster if I pursue my statement, but just as the committee wishes.

Mr. KING (presiding). I suggest you allow the doctor to proceed.

Mr. NELSON. May I make a suggestion? The real making of the \$5, \$10, and \$20 gold piece into currency would really not be done, but it would simply be in bar form?

Professor FISHER. Yes.

Mr. NELSON. So that currency we speak of to-day as our gold would really be eliminated.

Professor FISHER. That is, one currency would be eliminated; gold coinage would be eliminated and is practically eliminated already. Gold now circulates seldom in coined form, except at Christmas time for presents, and then it is a curiosity. You very seldom see real gold coins unless especially asked for. What we do do in the way of circulating gold is to use the gold certificate, which is a warehouse certificate. When you have a gold certificate it certifies that for each dollar the holder has on deposit in the Government warehouse 23.22 grains of gold, and through that yellow back gold is circulating.

You would abolish minting, but you would give the mint a little different kind of job, so to speak. It buys and sells gold now at a fixed price, and this is simply to provide for buying and selling at rates to correspond with the index number worked out by the Computing Bureau. You are not going to have several different kinds of dollars. You are going to have these yellow backs in circulation, the printing on which will be somewhat changed. They will be redeemable at any one time by the proper amount of gold by the rule I have just given. You will not have a dozen yellow backs, some redeemable one way and some redeemable another. The average man would not know anything had been done, if you had this bill passed. I would venture to say that 99 per cent of the people would forget it in a week.

Mr. NELSON. It would be a painless operation?

Professor FISHER. It would be a painless operation; the simplest thing in the world; and when it was done the only way the people would notice it would be by not noticing changes in the price level. They would say, "Ten years ago when we looked at this curve showing the price level it went wiggly, and after that it has gone straight. What is the reason for that?" Some

one would say, "You had better look at the bill passed in 1922, and then you will understand it."

Mr. WINGO. Professor, you assume that there would not be a demand by the people that you term "populistic" with the index commodities?

Professor FISHER. Yes, I do, and I can prove it.

Mr. WINGO. The fellow who raises the potatoes or pumpkins would be the fellow who would propose the change, would he not? Who is going to say whether these potatoes or pumpkins are the measure?

Professor FISHER. You may think that the man interested in selling cloth would want to tamper with the yard stick, but he does not. He is perfectly willing as long as the expert says it is fair to use it. It is only when there is unfairness that you get this discontent, and you never find populism or any of these other things that want to interfere with currency coming up until the currency has been interfered with. It is only when the currency is bad that the people complain. Abroad they are complaining of it, as Professor Rogers has told you, and are now gradually waking up to it. But it takes a tremendous change to make and wake up. That is a curious thing. The average man does not appreciate that a dollar changes. If it really does not change, then he has not any kick coming; he has not any basis for complaining. It is only when he finds this change but does not understand it that he makes a complaint. Then he complains of the wrong thing and does the wrong thing about it.

Mr. WINGO. If you stabilize gold, will it stabilize currency?

Professor FISHER. The stabilization of the dollar means the stabilization of every dollar; every dollar must be the same as every other; the paper dollar must be the same as the gold dollar. And that leads me to say one thing, Mr. Wingo, which I would like to stress: It is perfectly true, as you indicated when Professor Rogers was speaking, that credit is a tremendous factor in this thing, and the chief criticisms I have had of this plan from men like Paul Warburg and others who have looked at it from the standpoint of experience from the management of credit, is that it seems to ignore the credit superstructure; but it is not a just criticism, as I will show you in a minute.

I will illustrate by referring to an enthusiast in California, who, when he saw this inflation coming, during the war, telegraphed me—that was back in 1917—and said, "Won't you do somethin'? Get Mr. So-and-so and So-and-so"—mentioning some prominent people who believe in my plan—"to get Congress immediately to stabilize the dollar, and then we can inflate all we like. This inflation is doing a great deal of harm, but if you will only stabilize the dollar and make the weight of a dollar change from time to time to suit, then we can issue all the Federal reserve notes we want to. There would not be any harm resulting."

I telegraphed back that I would write him, and I did write him and I told him then, of course, "You would simply have on thing fighting the other. You would be making a house divided against itself. If you insist on inflating while at the same time you are trying to overcome the results of inflating, the ultimate effect would be a breaking down of the system. You would make dollars bigger and bigger and at the same time make liabilities against them greater and greater until by and by there would be a breakdown and do just what it did abroad. The system might stand up and be stable for a few months, but it would certainly break down."

So, in order to stabilize the dollar most perfectly, and to keep it stable, we should not only adopt this bill but have the good will and cooperation of the Federal Reserve Board not to adopt a policy inconsistent with the purpose of the bill. That is, there should be some reasonable conduct of the banking business. If the Government or the banking machinery keeps on inflating while you are trying to stabilize, your stabilization will be short lived and your inflation will in the end win out. In describing the bill similar to this in my book, I say, on page 213 [reading]:

"The above act assumes that a reasonable banking system, such as our Federal reserve system, already exists under which deposits subject to check will be kept in some reasonable relation to bank reserves.

"The Federal Reserve Board could assist in the prompt and efficient operation of the new system by having due regard for the rise and fall of the index number, as suggested by Mr. Paul Warburg. This would help its adjustment of the rate of discount and its general loan policy to be such as to keep the volume of individual deposits subject to check approximately proportional

both to bank reserves and to the Government gold reserve against gold-bullion-dollar certificates."

For the most perfect stabilization these two things are sufficient: First, to pass this bill substantially as it is; and the other is to control credits.

You will remember that Mr. Rogers said that he thought that while this bill would suffice for preventing great inflation and deflation during any long periods of time, for short periods of time it would not work very well, because credit might be fluctuating; and you could not ignore the effect of credit from month to month in the purchasing power of the dollar. That is absolutely true, and I have read this passage, showing that I provided for it in the book.

Many people think I am purely confined to gold in this proposition and that I have taken no account of the superstructure of that gold.

Now, if your superstructure is kept in reasonable proportion to your base, all you need is to stabilize the base. I firmly believe that the Federal Reserve Board, the minute this bill is passed, would not require any other hint, but would at once try to cooperate; it would readjust the rate of discount from time to time; it would watch the price level, too, and if the price level seemed to rise at any time it would raise the rate of discount and check inflation; if it seemed to fall, it would lower the rate of discount and check the deflation.

Of course, if they should refuse to cooperate, if they should defy this bill, it would reduce its influence and might result in the breakdown of the system.

Mr. KING. They will do that.

Professor FISHER. I do not think so. I know a good many members of the Federal Reserve Board, and I have talked to them in regard to this; and while I am not a member and not authorized to tell you their attitude, I do believe, with the utmost confidence, that they would cooperate; and if you have any doubts about it, all you would need to do is to amend the Federal reserve act by saying in a certain passage in there which would only take three or four words, that they are authorized and required not only to "accommodate business," as the phrase says, but to prevent inflation and deflation.

#### **STATEMENT OF PROF. JAMES H. ROGERS, CORNELL UNIVERSITY, ITHACA, N. Y.**

Professor ROGERS. Before taking up what I had in mind saying this afternoon let me first express my almost complete approval of what Professor Fisher has just said to you and state that in my estimation the bill which is now under consideration represents one of the greatest reforms that has been proposed in recent history.

It might be interesting for me also to comment in the beginning on certain changes which have come about in the attitude of certain foreigners toward their currency. I agree perfectly with what Professor Fisher has said regarding the tendency for these people to hold the monetary unit as something that is stable; that is, they think in terms of marks, they think in terms of crowns, and that has until very recently been the practice of practically everyone—that is, practically everyone in these countries has thought in terms of their monetary units.

There has, however, come a distinct change in the attitude in Austria, for example, and it has come about in this way: The Austrian shopkeepers—to take the case of little business men—have found that when they sold their goods they sold them in the ordinary way—they would buy them at a certain price, add a percentage of profit, and then sell them. In doing this they would use their total selling price to get a new stock of goods at the end of the period. Well, the depreciation has been so rapid in Austria that although they would turn over their stock in a comparatively short period of time they found when they had used their total funds—that is, the cost price plus the added percentage of profit—that they could not buy as many goods as they had on hand to begin with; in other words, they have come to realize that instead of making profits out of their business they have been consuming their stocks. That has led to quite a distinct change in their attitude recently, and it is of interest to us, because even the business people, as represented by the small shopkeepers, are finding that the inflation of prices has become so rapid that they likewise are beginning to lose rather than gain by the increase.

In that connection I had an interesting story from one of the German bankers. I was talking to him in regard to the various phases of his business, and I asked him the question as to what rates of interest he was charging

for his loans. He made the statement that he was charging rates which varied from 12 to 15 per cent on current accounts, and when I asked him further how it was possible for him to loan money at rates of interest so low—that is, 12 to 15 per cent—that there must be a depreciation in the purchasing power of the money during the life of the loan greater than is represented by that 12 or 15 per cent, he said, "Yes; there is. The only reason I can do it is because of the fact that there are certain persons who are stupid enough to bring their funds and deposit them with us. That furnishes part of our funds. There are also certain American speculators who will continue to buy marks. That furnishes another portion. In addition to that, the rest of the funds that we are loaning come from the central bank. So it is purely a 'passing on' process."

I think that is of interest, because it indicates that the bankers, at any rate, have recognized that there is what we might call this "stealing process" going on purely from the inflation of the currency.

There is another interesting comment I might make on that particular subject. I was talking with another Berlin banker and asking him just how he did business under a system of this sort; that is, of highly depreciating currency. He said he had found that his accounts did not represent what they were supposed to represent, did not give him the exact state of his business; and he said that he avokey to that fact in a very peculiar way: That his bank was operating a number of paper mills, and that at the end of the year he was very much surprised that the paper mill which had made the greatest profits was one which had burned down during the course of the year; and the way he explained it was that his pulp had been continually accumulating and the rise in the price of the pulp was considerably more than his profits, which he had been calculating in the ordinary way, from doing his paper business and selling his product with the ordinary margin.

When a banker has to be awakened to difficulties in that way, you can easily see the position of the ordinary man on the street.

But I shall not comment further with regard to that, but shall give you a few opinions which I have prepared.

Mr. WINGO. You did not mean the word "steal," in the ordinary acceptation, did you, Doctor? You mean an economical expropriation?

Professor ROGERS. There is not very much difference; it is a system of "steals" or it is an expropriation.

Mr. WINGO. I suggested that because some object to the harsher word.

Mr. NELSON. You think that is a difference without a distinction, do you?

(No response.)

Professor ROGERS. The importance of currency stabilization need hardly be emphasized. The entire thinking population of the United States has just lived through a period of price fluctuations of magnitude unknown in this country since the Civil War. Every class in our society has in turn suffered from some phase of the effects of this instability, and so recent have been their sufferings that many of the injured are still asking why such injustices are not eliminated by proper legislative action.

But, severe as have been the injuries from currency instability in this country—and I have no doubt that the members of this committee are painfully familiar with both their extent and intensity—the extreme disaster resulting from complete lack of stability is even more forcibly brought out by reference to the highly exaggerated conditions prevailing on the continent of Europe to-day. In the long period of depreciation and rising price levels, which is still being continued in most of the countries of Central and Eastern Europe, the amount of suffering directly attributable to currency instability and to that alone is, to one who has not witnessed it, almost beyond comprehension.

Innumerable examples might be cited; time will permit of but one. In Budapest, a little over a year ago, I was visiting a philanthropic poorhouse established and operated by a wealthy woman of that city who had invited me to go through the institution with her. In a small curtained-off room, with bare floor and no furniture other than two iron beds and a washstand, she paused to remark casually: "This space has been assigned to two judges who retired from the bench about the end of the war. Like most other persons of their highly respected class, they had invested their savings in bonds and other conservative securities. The currency depreciation has turned their once ample incomes into a mere bagatelle, and they have applied to me for shelter."

But it is not only the bond-holding class which has suffered so unjustly from the effects of instability. Here must be included again "the forgotten man"—the clerk, the government employee, the doctor, the lawyer, the preacher, the schoolteacher, the college professor, as well as the widow, the orphan, and the aged and infirm who, over a long period of years, have laid by something for a rainy day. These persons, who make up the great conservative, honest, patriotic, dependable middle classes, have been all but reduced to starvation.

In other words, the inflation policy made possible by currency instability is not only destroying the class upon whom many of the institutions of our modern civilization rest, but is likewise inciting to revolution the most conservative and patriotic elements in the populations of these unfortunate countries.

The evils of business depression need hardly be emphasized. Suffice it to call attention to the fact that the period of falling prices is just as painful and just as disastrous in its economic effects as that of rising prices, and that most of the resulting evils may likewise be traced to currency instability.

The stabilization plan embodied in the bill recently introduced by Mr. Goldsborough is, in my opinion, the best that has yet been proposed. And while there are included certain provisions which if left unchanged seem to me to contain elements of danger, it is my firm conviction that the incorporation of this bill into the laws of the Nation would almost completely eliminate general price changes extending over long periods of time and would do much toward accomplishing price-level stabilization, thereby tending to remove for the future not only one of the greatest sources of social injustice and class discontent but also one of the most important causes of inefficiency in our business organization.

And by that I mean to say this: That when prices are continually changing and changing radically over long periods as well as short periods that the man who makes a success in business is the man who interprets the price movement and adapts his policy to price movements, and I think that that is the case much more than for the man who spends his time and puts his attention on the processes of manufacture or the processes of making his business efficient. If we could remove the necessity of his spending so much energy and thought on the question of interpreting price movements and let the business man put it on the details of his business, I think we should get an increase in efficiency that is hardly appreciated.

I am going to make certain minor criticisms of the bill, and these minor criticisms are with regard to certain provisions of the bill, and I wish to make my position very clear that these criticisms, or, rather, the dangers which I am criticizing, seem to me to be almost infinitesimal in comparison with the evils which the bill is proposed to remove, and it is simply with the hope of making the bill a better one that the criticisms are made.

The passage of this bill would, in my opinion, however, not eliminate short-time variations in the price level, because of the fact that not only is a maximum correction of 1 per cent each two months in the weight of the gold-bullion dollar not sufficient—even if the entire correction should be immediately effective in the price level—to check rapid price changes, but because of the fact that also under our existing tariff laws and Federal reserve banking system will prices not adjust themselves readily to changes in the gold content of the dollar.

But it in no way condemns a bill to point out that it fails to accomplish all we would have it do. Still I see one serious defect, and while it is my hope and my belief that this defect can be eliminated, the proposed reform should not become a law until the dangers arising therefrom are carefully investigated and at least minimized. I can best explain by a concrete example.

Let us suppose that the new system were in operation and that prices were falling rapidly in this country. And let us suppose, also, that the English were again on the gold standard. Since the weight of gold represented by our dollar could not be reduced by more than 1 per cent every two months there would, under the circumstances assumed, soon be an accumulated deficit in the index number of prices, making it practically certain that further decreases in the weight of the bullion dollar would have to be made at the end of each of the several immediately succeeding two-month intervals. Under such circumstances, British bankers would almost certainly begin to borrow extensively in New York (interest there under falling prices would likely be low), convert their loans into gold and ship them to London, where funds thus secured would be loaned at the prevailing rates of interest. Later when the dollar had been

lightened by say, 5 per cent, the gold would be returned and reconverted into a number of dollars 4 per cent greater than the original sum, speculating bankers thereby making 4 per cent from the United States Government in addition to interest at the rates prevailing in the London market. Since such loans could easily be arranged in periods of monetary ease (which generally include all periods of falling prices) by the sale of finance bills, not only might the drain of gold to foreign countries become appreciable, giving other centers a temporary advantage over New York in discount rates, but also loaning rates in our monetary centers might be considerably stiffened with a consequent retardation of business recovery.

The evil above referred to would arise only under a condition of accumulated deficits in the index number, but a reverse evil would arise under accumulated surpluses, leading at times of rapidly rising prices to borrowing abroad, increased importation of gold, reduction of loaning rates on the New York market, and finally to an artificial stimulus to an already too rapidly progressing inflation. Hence both surpluses and deficits in the index number, when accumulated, seem to give rise to possible speculative abuses in connection with international loans.

Other forms of speculative abuse seem admirably taken care of by the "brassage tax" and "limited correction" features of the bill, and I should add that it is my thought that the forms designated can likewise be easily taken care of by certain other provisions. Consequently, with index numbers carefully constructed and capably managed, and with the above-mentioned abuses completely guarded against, I feel, Mr. Goldsborough, that the passage of your bill—thus modified—would initiate one of the greatest of all monetary reforms.

Mr. MACGREGOR. Your speculative feature would knock the spots out of this bill, would it not?

Professor ROGERS. I do not think so; that is, I think to begin with, that the abuse would probably be quite slight; and I think, in the second place that it is very likely that some simple provision can be found to avoid it; but I have not found it.

Mr. MACGREGOR. You have not a suggestion?

Professor ROGERS. I have not; no.

Mr. WINGO. There is one question I was going to ask Professor Fisher: If the stabilization itself is advanced by relative uniformity in the standards of different countries—for illustration, you stated the English value of gold might remain unchanged, whereas we would change our quantity value—that is, the content of our gold dollar?

Professor ROGERS. Yes.

Mr. WINGO. In the two-months period it would precipitate the thing that you have just mentioned. It is not only a possibility but a very strong probability. The machinery would be easily operated—that would occur almost to a certainty. Do you think that that could be guarded against by some provision, and how could it be?

Professor ROGERS. I have no provision to guard against it, except that I can make this suggestion, which may lead into other difficulties, and that suggestion is that we find some provision which would prevent accumulated deficits and surpluses from piling up. It is only when there was reasonable certainty that the gold weights were going to be changed in one direction or the other that speculation would take place to any extent.

Mr. WINGO. Would you have another uncertainty? If you had a commodity dollar like this, and I was willing to make a contract and let you have the money over a given period of time that would cover not only a possible but almost certain period of change, would I not specify in the contract the quantity of gold in the dollar in which I was to be repaid?

Professor ROGERS. Yes; you might do it.

Mr. WINGO. And would not that put upon the market bonds that were payable not in so many dollars of the same fineness and weight, but here would be bonds of the "A Company" payable in dollars of so many grains of gold and bonds of the "B Company" on the same market payable in another dollar of another different weight, and would you not possibly make "confusion worse confounded"? How would you meet that?

I am not throwing that out as opposition to the bill; I am just figuring the possibilities of the law.

Professor ROGERS. I would meet it in this way: That certainly my preference in the case of a bond—if it were a long-time investment, as, for example, a bond—would be to have the bond paid in dollars of this varying weight of gold, because then I should know that at the end of the period I should get back dollars—if it were a thousand-dollar bond—a thousand dollars which would purchase the same amount as the dollars I loaned; whereas, if I may refer to one of Professor Fisher's examples, that of the servant girl, for example, who deposited \$100 in 1896, and had gotten 3 or 4 per cent interest in the meantime, and the total amount does not aggregate at the present time the hundred dollars that she originally deposited—I think there would be few people that would prefer the bonds payable in dollars of a special weight to those payable in the standard dollars under this system.

Mr. WINGO. Suppose you had some surplus funds and wanted to invest in bonds.

Mr. DALE. Mr. Wingo, do you accept that illustration that he just gave you?

Mr. WINGO. I do not accept that illustration, but I am going to follow it up. Suppose you have some surplus funds to invest; I am putting out the bonds for my company and Mr. Black here is putting out some bonds for his company, and he were to offer to give you a bond specific and certain as to the number of grains of gold that he would pay you at the date of maturity—say 20 years from now. I would say, "I will not be as specific and certain as to the number of grains of gold that I will pay you in the end, but I will pay you in the gold dollar that may be the standard on the date of maturity." Which one, as an investment, would you buy, mine or his?

Professor ROGERS. I should buy yours.

Mr. WINGO. You would?

Professor ROGERS. Yes, sir.

Mr. WINGO. In other words, you would buy a bond which promised you no specific number of grains of gold in preference to one defined a certain number of grains of gold? You would really take mine?

Professor ROGERS. I would.

Mr. WINGO. I should prefer something definite and certain.

Professor ROGERS. I want something definite, fixed, and certain, but the thing that I want, fixed and certain is the purchasing power of the money that is going to be returned to me.

Mr. WINGO. If all men knew what you and Doctor Fisher knew that would change the situation. Doctor Fisher has just called attention to the fact that the great mass of people do not understand the underlying philosophy of price movements, and the average man in the street would say, "I want something definite and certain; I want so many grains of gold on a specific date." If all people had the vision and the recognition of the underlying philosophy of price movements as affected by the instability of our present currency, it is true they might do like you would do. Don't you think that the average man in the street would be like myself and say, "I want something definite, fixed, and certain?"

Professor ROGERS. That is, using the things you speak of as being definite, fixed, and certain, I think that under a system of this sort that the people would think in terms of dollars just as they think in terms of dollars now, and just as they think in terms of pounds in English and as they have continued to think in terms of marks in Germany. My contention is they would continue to think in terms of marks and dollars that meant something definite.

Mr. WINGO. But let me ask you another question, that it appears to me, and I will ask it so that Doctor Fisher may answer it. It may be easily explained. In 1920, at the very time that the price of basic farm commodities, like wheat and cotton, were going down, the price of farm implements and fertilizers were going up. How are you going to meet that situation with a stabilized dollar?

Professor ROGERS. There will be individual movements of prices, and it is impossible in advance to tell which prices will be going up and which will be going down.

Mr. WINGO. Suppose this law had been in effect in 1920 at that particular time. Would you have been adding to or taking away from the quantity of gold in the dollar?

Professor ROGERS. Prices were going up still in 1920—you would have added to the weight of the dollar, of course.

Mr. WINGO. Prices of basic farm commodities like wheat and cotton were going down. The farmer in that instance would catch it both ways, would he not?

Professor ROGERS. No. I think that your assumption is a little bit unfair, for this reason: That is, if we had had this sort of a monetary system in operation, we should not have had the great rise in prices that we had in the period of 1917 to 1920, and, therefore, we ought not to have had the great fall that we have had since that time.

Mr. WINGO. I will give you another illustration of the economic fact: Suppose you had 20,000,000 bales of cotton produced this year instead of 10,000,000, and at the same time you had just half a crop of wheat. How would you make it fit both the wheat grower and the cotton grower?

Professor ROGERS. It would fit both. The difficulty is that too much cotton has been produced and too little wheat.

Mr. WINGO. Well, it does not make any difference what you do to this bill if this bill becomes a law, and if you produce twice as much cotton as we need and twice as much wheat as we need, the price will go down?

Professor ROGERS. The price, under those conditions, would go down, unquestionably.

Mr. WINGO. Do not you gentlemen sometimes fail to make the distinction between expansion and inflation? Is it true or not, from the standpoint of pure economics? I enjoy these theories, and think they are fine. But the legitimate distinction between expansion and inflation is not measured by the volume of gold, money, and credits that you have as measured by the need for them; that is, the volume of commodities and things that are being interchanged. For illustration, when there are 20,000,000 bales of cotton and twice as much wheat produced—in other words, if you have twice as much wheat produced next year and twice as much cotton produced next year, if the consumption of the world doubled and you are using double the amount of wheat and of cotton, then so far as the quantity of production is concerned there would not be any change of prices. The law of supply and demand would do the same thing, therefore.

Professor ROGERS. Well, substantially, for those commodities.

Mr. WINGO. I say, in other words, with the consumptive capacity of the world jumped and doubled, and if at the same time that the productive capacity jumped, the demand would be equalized there. But would it not at the same time require just twice as much gold, paper, or credit to handle it and act as the medium of exchange for the handling of that double volume of commodities?

Professor ROGERS. It would; and our banking system has admirably provided for that.

Mr. WINGO. Has it done that, Doctor? There is a thing that has worried a lot of us gentlemen who are interested in the Federal reserve act. Do you not know that at the time you had a bumper wheat crop or a bumper cotton crop, which even if it had all been taken would have required a greater volume of credit for money or gold, but, in addition to that, you had the burden of an underconsumption, did you not, at that time? So we will not even furnish enough for the carrying load, much less for the turnover load, and was not that the thing from which Professor Fisher said populism sprang up in the wheat and cotton belt. They do not understand why we have had it. We have expended as much labor, but it is not worth as much in clothing and food to the children of men, and yet we have inflation that we can not furnish you the medium of paper or gold to handle this business. That is what that farmer complained about. Will this bill meet that situation?

Professor ROGERS. I will refer to that in one minute, but first let me answer your question with reference to the situation in Germany at the present time. I have talked with a great many of the German bankers during the past summer, as in the summer a year ago, and one of the outstanding features of the present system is this: Each banker would say to me, "The chief difficulty is that we do not have money; we do not have enough money. The reason we charge these big rates of interest is because we can not get enough money. There is a tremendous demand for credit on the part of business people of all sorts, and we can not meet it."

And I call your attention to that because it is illustrative of what existed in this country in 1920. Under a period of increasing inflation you invariably get a tremendous demand for additional credit and additional money on the part of business people. That has led, as has, in addition, the financing of the German Government itself by printing paper money to pay its own bills, to a credit expansion and monetary expansion coming directly from the demand of the business people themselves.

Mr. WINGO. Has not the increased exchange instruments, both gold, paper money, and credit, that has been made possible under the Federal reserve system, upset a good many of the underlying controlling factors? As a matter of fact, you are more interested in stabilizing credit in this country than you are stabilizing the dollar, are you not?

Professor ROGERS. We are interested in stabilizing both.

Mr. WINGO. Do you not think if you stabilize the credit that the dollar will mighty near take care of itself if you have that credit expressed equitably in its intrinsic value? Is not that the theory back of gold, that gold is more unchangeable in its material—actual quantity and quality—than any other instrument, and therefore you take it? Credit is based in its many terms upon that standard, and is it not the volume of credit?

Here is one man who says, "I think you have got inflation." The other man says, "No; it is legitimate expansion." Is it not a difference of judgment as to whether a demand for an increase in credits is an inflated demand or legitimate expansion; is not that where the trouble comes?

Professor ROGERS. I think not.

Mr. WINGO. Did not your trouble come in 1920 and 1921 by going to the other extreme; in other words, did we not jump from the frying pan into the fire; when you look back over that period, is not that the conclusion you have reached?

Professor ROGERS. No; it is not.

Mr. WINGO. Most of the bankers think so. Are you not afraid of another period of inflation right now?

Professor ROGERS. Yes; I am.

Mr. WINGO. We have started on it. We have a good many gentlemen in the banking world who are very much alarmed, have we not?

Professor ROGERS. Yes.

Mr. WINGO. And what Professor Fisher said is correct, that the trouble is you jump from one extreme to the other. The point I am trying to make is, can you cure it absolutely by stabilizing the standard? But there is something else, and it is the volume of trade. However much you may fix the standard, that will lead into a different basis, and that is credits; is not that the principal trouble of this country, that there has been manipulation either to an unwise degree of expansion or to an unwise degree of inflation; but has not that been the cause of most of our troubles since the war?

Professor ROGERS. I should like to go back to answer your first question.

Mr. WINGO. I may be wrong; I am throwing this out to get your idea.

Professor ROGERS. The main difficulty is, I have so many questions to answer.

Mr. WINGO. I agree with you.

Professor ROGERS. You have asked several questions before allowing me to answer one. Take the case of 1920 in this country. Nineteen twenty was a period of culminating prosperity; that is, the end of a period of a long series of rising prices. You had the situation in that period similar to the situation which exists in Germany to-day, although in much less exaggerated form; that is, there was a tremendous demand for credits of all sorts, and if we had proceeded to issue more credits; that is, if the banks had proceeded to issue more credits and the Federal reserve banks had continued to issue Federal reserve notes, my guess is that we should have continued in the same direction in which the Germans have gone; that is, if we had done it without restraint, as the Germans have done. Instead of that, we have decided that we would adopt the policy of raising the discount rates in the Federal reserve banks and gradually cut off this period of rash inflation, because the dangers of the period were seen by a great many people. To continue giving out credit under circumstances of that sort seems to me to be but little short of folly.

Mr. WINGO. In other words, the progressive theory of the discount rate did not work in this country like it does in England. It was an absolute failure, was it not?

Professor ROGERS. No; it certainly was not.

Mr. WINGO. Is it not the contention of some that the people who really did get it and paid this exorbitant price should not have had increased credit?

Professor ROGERS. I do not think that that was the consensus of opinion; the credit was given out by the Federal reserve system.

Mr. WINGO. I have had good men say that when the rate of discount was so high they could not afford it as business men and could not afford to go on. The only fellow who could afford it was the speculative interest and you put a premium on the speculative interest by the rediscount. So that the conservative

business man could not afford it, and you really gave it only to the speculative interests.

Professor ROGERS. It seems to me that this discussion brings out the necessity of eliminating, if possible, these long periods of rising prices, culminating in a crisis, and then likewise eliminating the periods of depression which will follow.

Mr. WINGO. In other words, your theory is this, that the primary cause, measured over long periods, is the stability of your standard. But, of course, you recognize that where one year you might have a double volume of one basic commodity, and what was required, for illustration, one year the cotton farmer produced twice as much cotton, and maybe the same year the wheat grower produced only half as much wheat. Therefore, you would have contradictory conditions, and no stabilization of that standard would prevent the effects of those two contrary conditions, would it?

Professor ROGERS. Nothing will ever prevent that, in my estimation. That is essentially necessary—not only essentially true, but essentially necessary—if our economic structure is to develop along the lines it should develop. If too much cotton is produced, I say the price ought to go down, because if it does not go down we will continue to produce too much cotton, instead of producing something else that the people want and need more, which is the object of a well-planned or well-organized economic system.

Mr. WINGO. Do not overlook the fact that you might add more stability if you had a more stable marketing system by which needs could be met. Instead of precipitating all the wheat and cotton and copper and all the other basic raw materials on the market at once, would it not be better if you had a stabilized market for that?

Professor ROGERS. I think the stabilizing market process is extremely good, and is a thing which we should all work for. But it is a thing quite distinct from the present plan.

Mr. WINGO. I presume you and the professor would, if you stabilize the standard, make it all the easier to have stabilization of the marketing process.

Professor ROGERS. I am not sure of that.

Mr. WINGO. If the theory of the bill is correct, I suppose it would be your contention that it would only aid.

Professor ROGERS. I do not see that it would affect it at all.

Mr. STEVENSON. I would like to ask you a question about this proposed measure. Page 9, section 12, subsection (b) [reading]:

“(b) That all debts, public and private, falling due after January 7, 1924, including debts theretofore created and expressed in dollars of ‘gold coin of the present standard of weight and fineness,’ or expressed in words of like import, shall be payable in standard gold bars at the rate in grains per dollar fixed by or under this act for the time when each debt falls due, and the balance, if any, less than five ounces, in lawful money. Such standard bars shall be lawful money and a legal tender for this purpose.”

The question I want to ask is this: There was a time when cotton was selling at something over 25 cents, and a good many other marketable products were selling at a good price. You adopt this standard, and this Bureau of Labor Statistics decides for this quarter that there shall be so many grains of gold represented by a dollar in this currency that you issue under this bill. A man contracts a debt now and under those circumstances, and 12 months from now cotton did not bring 15 cents, and other things in proportion. He comes now to pay that debt. Will he pay more or will he pay less than he gets today, in the same kind of dollars?

Professor ROGERS. You have not given me enough data, I think, to base an answer on.

Mr. WINGO. That is all that this bill gives us. Suppose the standard prices of the 104 commodities have declined two-fifths from the time the debt is created. At the time he goes to pay the debt he makes his legal tender of gold bars, or the certificates that represent them, of the amount that is fixed under this bill at the time he pays, not at the time when he contracts the debt. Now, will he pay more or pay less when the price is only three-fifths—when the general price of commodities upon which the amount of gold in a dollar is fixed is only three-fifths when the debt was created—will it make him pay more or less than he got?

Professor ROGERS. It will make him pay less in gold, of course.

Mr. WINGO. That is what I want to get at. Then, if he buys it when cotton is bringing 15 cents, if he gets his loan then, and he goes to pay when it is

bringing 25 cents—in other words, when you add two-fifths instead of subtracting two-fifths, then he would have to pay a good deal more in gold when he went to pay than he did when he contracted the debt. That is the question I want to get at.

Professor ROGERS. The situation seems to be this, Mr. Stevenson: Of course, most of those loans will be made in terms of dollars. He will buy in dollars, he will make the loan in dollars, and he will pay back in dollars.

Mr. STEVENSON. But the dollar will be of a different weight, according to the difference in measure in prices on these 104 commodities.

Mr. ROGERS. Yes, it will be a different weight of gold. The gold bonds of certain railroad companies that are in existence at the present time state what the legal tender provision will be for such bonds as those. I do not grasp yet exactly what you want.

Mr. STEVENSON. What will be legal tender of any ordinary debt?

Mr. ROGERS. Dollars.

Mr. STEVENSON. That dollar is going to change in every quarter, if the price of commodities, that is, if the general price level changes every quarter, then the dollar price changes every quarter, do they not?

Mr. ROGERS. The amount of gold which is given at the Treasury in redemption changes.

Mr. STEVENSON. It amounts to the same thing.

Mr. ROGERS. Most people are not interested in the gold they can get from the dollar; they are interested in getting dollars, and they are interested in getting dollars because of the things the dollars will buy and they are very much interested that these dollars buy the same amount when they get them back as when they gave them out.

Mr. STEVENSON. Suppose if it were found that every German mark to-day could be transferred somewhere, and they could get 23 cents in gold for each one, do you not suppose the mark would get back to par right away?

Mr. ROGERS. I do.

Mr. STEVENSON. You say they are interested in getting dollars and not in getting gold. Why was it that during the Civil War and for years thereafter it took about \$3 of the promises of this Government to buy a dollar in gold? Was it not because there was not gold back of it?

Mr. ROGERS. Yes.

Mr. STEVENSON. When a man went down here on the street and sold his produce and got \$50 in paper money, he was obtaining about sixteen and two-third dollars if they had given it to him in gold, was it not, because a dollar in gold was worth about three times as much; it was not because he was selling them to get gold, but from the very fact that gold was worth that much more in the market.

What I want to get at is, what effect is it going to have on the certainty of a man's dealing, and especially of the debtor class—the creditor class generally take care of themselves. What I want to know is whether, if the prices shifted up or down, whether the man contracts at a time and gets money at a time when there are so many grains of gold in a dollar, or whether when he goes to pay he is going to have to pay with a dollar with so many more grains in it or so many less grains in it? That is the practical question that is going to confront this committee, I can tell you now, because you can see very readily that while there is no such thing—the Congress of the United States can pass an act which can impair by its applicability the obligations of a contract—still it would be an exceedingly poor piece of honesty for any Congress to enter upon that purpose; and it has never done it, with very few exceptions. That is the reason I want to know if under this there is going to be a shifting of the amount that the man pays who creates a debt to-day and a year from now goes to pay it?

Professor ROGERS. The person of course, will always pay the debt in the dollars which he is receiving for his goods; they both represent the same amount of gold at the same time. You borrow money at one particular time and you buy goods with it. At that particular time the dollar that you buy with will represent the same amount of gold; when you return those dollars you will return the same dollar that you received for your goods, assuming you are a business man, and the gold weight, I think, will concern very few people.

Mr. STEVENSON. I just wanted to get your view on that subject, because that is the crux of this whole business.

Mr. MCGREGOR. Will this index price shift very materially?

Professor ROGERS. The index number in the past has shifted quite materially, especially in the period from 1917 to 1920. The rise in prices, I believe, was 140 per cent, or something like that, in the period of 1917 to the end of 1920. Before that time, such extensive price shifts in this country were unknown since the Civil War.

Mr. STEAGALL. This bill would make the amount to pay depend upon what general list is used as a basis, rather than any one commodity or product, would it not?

Professor ROGERS. Of course; you will always pay in dollars, but those dollars will be redeemable in varying amounts of gold, depending on the movement of this general index.

Mr. KING (presiding). The committee will take a recess until to-morrow morning at 10.30 o'clock.

(Thereupon, at 4.40 o'clock p. m., the committee adjourned to meet to-morrow, Tuesday, December 19, 1922, at 10.30 o'clock a. m.)

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COMMITTEE ON BANKING AND CURRENCY,  
HOUSE OF REPRESENTATIVES,  
Washington, D. C., Tuesday, December 19, 1922.

The committee met at 10.30 o'clock a. m., pursuant to adjournment, Hon. Clarence MacGregor presiding.

Mr. MACGREGOR. The committee will be in order, and Professor Fisher will please resume his statement.

**STATEMENT OF PROF. IRVING FISHER—Resumed.**

Professor FISHER. Gentlemen, yesterday I was speaking of the provisions of this act, and I spoke of the two chief bureaus and activities established under the act, namely, the computing bureau—which I believe is specified to be the Bureau of Labor Statistics—which would get up the index number and publish it every two months, giving it to the Bureau of the Mint, which, as the other of these two bureaus, would take this figure and calculate therefrom the price that should be charged for gold and the price which should be received for gold.

The activities of the Government in thus buying and selling gold would be exactly the same as now, except that the price would be changed from time to time.

The essence of our gold standard at present is the buying and selling of gold by the Government at a price set by the Government, and at present that price is unalterably fixed. The essential thing that this bill accomplishes is to change this price. At first it would be as it is now, \$20.67 an ounce. That means that anyone who produces gold or anyone who imports gold can take it to the assay office and sell it at the rate of \$20.67 per ounce of pure gold; and that anyone who wishes to export gold, or who wishes to buy gold for jewelry or other purposes in the arts, can buy it at that same price of \$20.67 an ounce.

The only people who really are interested in these dealings are the gold miner and the importer of gold on the one hand, and the jeweler and the exporter of gold on the other hand.

These four classes practically include everyone who is now interested in this interchange. But through their operations they determine what the purchasing power of our dollar shall be.

If the gold mines increase their production through new discoveries in Cripple Creek, Alaska, South Africa, or Australia, then more gold is sold and goes into circulation in the form of paper yellow backs and inflation is produced. In other words, the purchasing power of the dollar is decreased.

If, on the other hand, jewelers, through some change in fashion, are demanding a large quantity of gold or foreign countries are demanding it and exporters therefore get it to export, that drains the gold; and it is drained by means of taking to the treasury of the United States these yellow backs for redemption, which are canceled; the gold is exported, the circulation is reduced, contraction occurs, and the price level tends to fall; that is, the purchasing power of the dollar increases.

What this bill accomplishes is merely, while retaining all these functions of buying and selling by the Government, adjusting the price in such a way

as to prevent inflation or deflation, and that is done, as I said, by means of these two bureaus, the one computing the index number, which is the guide, and the other applying it.

There are, however, a number of details in the bill. One of the two most important details I have mentioned, and I assume it is not necessary to go into further detail, unless you ask questions about it.

In the first place, in regard to the reserve: At present we have 100 per cent reserve against our gold certificates, the gold certificates being really in the nature of warehouse receipts.

We could still retain 100 per cent, although the bill only provides for 50 per cent. But I will begin by assuming that it provided 100 per cent. If it did, then, in order to keep the 100 per cent reserve, in order to have just as much gold, dollar-for-dollar, behind the new certificates, which entitles the bearer, not to a fixed amount of gold, 23.22 grains per dollar, but to such an amount of gold, from time to time, as shall have a fixed value, or purchasing power, it would obviously be necessary for the Government to readjust this reserve. If, for instance, the price of gold decreases 1 per cent in the course of these operations, that means you increase the weight of the dollar about 1 per cent. If you thus increase the weight of the dollar, then the number of dollars you could make out of an ounce of gold would be lessened 1 per cent. Consequently, if you have outstanding \$1,000,000,000 of certificates and initially \$1,000,000,000 of gold behind them, you will by virtue of this change in the weight of the dollar no longer have a reserve of \$1,000,000,000, but only of \$990,000,000. It will be the same physical mass of gold, but the number of dollars in it under the new definition of "dollar" will be less. Instead of having a 100 per cent reserve you will only have a 99 per cent reserve.

Then, in order to restore the 100 per cent, you would cancel some of the outstanding certificates as they come in in the course of Government business, through taxes and otherwise until instead of having \$1,000,000,000 of them out you would have \$990,000,000 of them out.

In short, the increase of the size of a dollar would have as its effect a decrease in the quantity of yellow backs in circulation and the quantity of gold dollars behind them, and vice versa if the movement were in the other direction.

I have taken this 100 per cent reserve as the simplest case, but in the bill it is really a 50 per cent reserve—the reason for that being that the other 50 per cent provides a fund or margin to pay for the expenses involved in this operation in case there should be any, because when gold tends to depreciate in value the Government loses that value. Under this system, instead of the public losing it directly, as at present, the Government would have to be reimbursed for that expense by taxing the public.

The idea, then, is that after substituting for our present gold certificates these new gold-bullion dollar certificates, which take away half of the reserve behind them, we keep that half in the Treasury of the United States as special fund or margin to pay for any expense involved in the administration of this act. The other half would be a 50 per cent reserve. It would not make any difference, except to the accounting of the Government, if you kept 100 hundred per cent or made it any other figure than 50 per cent, but the 50 per cent reserve would certainly be adequate.

Mr. WINGO. I am getting the idea that you propose to do two things with this bill on the question of gold certificates. Now, I have a right to demand gold and to get gold on the gold certificate; under your bill I would have no right to demand gold.

Professor FISHER. Oh, no.

Mr. WINGO. The Treasury could pay me any lawful money?

Professor FISHER. No.

Mr. WINGO. Reserve and lawful money. Then another thing, the other proposal you have suggested is that you cut down the 100 per cent reserve to 50 per cent?

Professor FISHER. Yes.

Mr. WINGO. And automatically double the load on the base.

Professor FISHER. Neither impression is right, Mr. Wingo. The gold bullion dollar certificates instead of being warehouse receipts would become like our greenbacks—Government obligations. Our greenbacks are redeemable in gold, but there is not 100 per cent reserve.

Mr. WINGO. In other words, you propose to transfer every gold certificate out into greenbacks with a value of not over \$100?

Professor FISHER. The new certificate would not be exactly the same as a greenback; it would be a cross between a greenback and a warehouse receipt.

Mr. WINGO. The only difference would be the volume of the reserve, practically?

Professor FISHER. Yes; but it is redeemable in gold.

Mr. WINGO. Or lawful money?

Professor FISHER. No; not lawful money.

Mr. WINGO. It says "lawful money" all the way through here.

Professor FISHER. No; that is only for the small change.

Mr. WINGO. Let me read this [reading]:

"SEC. 9. That within three months after the passage of this act the preparation, issue, and paying out by the United States of certain gold coin certificates shall cease. For all gold coin certificates then owned or thereafter acquired by the United States there shall be substituted, dollar for dollar, gold bullion dollar certificates certifying that the United States of America will pay the bearer on demand \$100 in standard gold bars of not less than 5 ounces each and any smaller balance in lawful money."

Professor FISHER. Anything less than 5 ounces.

Mr. WINGO. Anything less than \$100?

Professor FISHER. Yes; just small change. You have got to make the cents somehow; you could not pay it in gold up to the last cent.

Mr. WINGO. You may be right. I am just stating what is in my mind.

Professor FISHER. That is right.

Mr. WINGO. On page 6, in the proviso there, you provide, where you are fixing, as I understand it, to retire the present gold certificates, that you are to retire them by paying \$10.01 of lawful money for every \$10 of standard gold coin that is offered, and it says "and in lawful money."

Mr. STEVENSON. It reads in the parentheses "as to any balance less than \$100."

Mr. WINGO. In other words, the distinction is then that what I suggested is true, only in balances of less than \$100?

Professor FISHER. Yes; and that is simply to make the small change, so you will not have to cut bars into gold dust.

Mr. WINGO. I had not thought of that.

Professor FISHER. At present you can redeem in gold to the very last cent, because your gold in the Treasury is in so many dollars anyway, in gold coin, let us say. But where your price is changed from time to time you will always have a little balance, and if you have \$1,000 to redeem, you may not have exactly 23,220 grains of gold. You may have 23,210 grains, and what are you going to do with the 10 grains? You are not going to grind up a little gold in order to take that out, and the Government reserves the right to pay you in coppers.

You asked me two questions. One was whether we retain a redemption of that \$100, I think.

Mr. WINGO. The other was on the question of reducing the reserve from 100 per cent down to 50 per cent, I believe you suggested.

Professor FISHER. Yes; I suggested that merely in order that the Government may have a working capital without having to appropriate especially for this. You see, the Government stands to have an expense in case the gold spoils on its hands, depreciating just as if it were fruit spoiling in your cellar. At present, if you carry gold in your pocket and it loses a little in value, you are that much out by carrying it.

Under this new system all that loss would fall directly on the Government. On the other hand, it can work the other way so that the Government gets a gain; in other words, the speculation that we now take by holding physical gold in our pockets is, under this bill, assumed by the Government; and it seems well, therefore (in order not to make an uncertain demand on the Treasury to require from time to time appropriations), to provide for that at the start. We can easily do this because we have the luxury now of a 100 per cent reserve, which is not necessary. But if there is any objection to that, there is no reason why you should not make it a 100 per cent reserve and appropriate a safety fund. That is a purely technical question.

Mr. FENN. Professor Fisher, just a moment. In speaking of this loss by carrying gold in your pocket, do you refer to abrasion?

Professor FISHER. No, no; I mean loss in purchasing power.

Mr. WINGO. Here is \$10-gold certificate. [Illustrating with currency.] If this bill became a law and I take this to the Treasury, they would have a right to pay me in lawful money for it.

Professor FISHER. No.

Mr. WINGO. That is less than \$100.

Professor FISHER. Oh, yes; if it is less than \$100.

Mr. WINGO. In other words, the small debtor we could make take silver certificates?

Professor FISHER. If he did not want to combine with several others so that it would amount to \$100.

Mr. WINGO. You could make him take silver certificates?

Professor FISHER. I suppose so.

Mr. WINGO. That is lawful money.

Professor FISHER. Because it is so small a sum, the Government is not going to dabble with it. Then, if you want gold, you can get it easily by combining with somebody else and make a tender of \$1,000.

Mr. WINGO. If you present over \$100 you would have a right to get the gold?

Professor FISHER. Yes. So much for one of the two points that I have mentioned. Then there is a provision for the gold reserve. Another point is a provision against the loss to the Government from possible speculation. That was referred to yesterday by Professor Rogers, and I think caused some misunderstanding, because the bill at that time had not been explained. I gathered from the questions that were asked him that you had not all read the bill in detail. Let me illustrate that. At present the Government buys and sells at the same price; its buying price and selling price is the same, \$20.67 an ounce. The provision in the bill is that the Government should, like any other merchant or broker, change these and buy at one price and sell at the slightly higher price of 1 per cent margin. Say, for instance, if it were buying at \$20 an ounce, it would sell at \$20.20 an ounce. The reason for that is that the Government is a slow-moving body and can not suddenly spring on the public a new price for buying and selling without word being passed around in advance as to what it is going to be; and if it were known to-day that to-morrow the price was going to be advanced from \$30 an ounce to \$30.17 an ounce, a speculator who was so minded could buy of the Government to-day all the gold that he could pay for at \$30 an ounce and to-morrow sell it back to the Government and make 17 cents an ounce profit overnight, without any risk, and this, while it would not do any great harm to our main object of stabilization, would be an imposition on Uncle Sam; and to avoid that, this margin of 1 per cent is put in the bill. In exactly the same way the broker provides against being victimized. Most merchants and brokers do have a margin between the buying and selling price; and the Government used to have the margin, called "brassage." So I have called it "brassage" here, although it is not properly brassage, because brassage was the fee for putting brass or alloy into the gold. The brassage fee was supposed to pay for the expense of that. But, whatever you call it, it is a margin of 1 per cent; and if you have not a word which expresses it better, let us call it "brassage."

Well, if there is a brassage charge of 1 per cent, then if the Government to-day is buying at \$30 an ounce and selling at \$30.30 an ounce, and to-morrow it moves that pair of prices up 17 cents, it will buy at \$30.17 and sell at \$30.47.

Under those circumstances, it is clear that no speculator could play the before-mentioned trick on the Government, because if he bought of the Government to-day at \$30.30, which is the higher of to-day's two prices, and to-morrow sold it back to the Government at the lower of to-morrow's two prices, namely, \$30.17, he would be losing 13 cents.

As long as there is a margin there to cover the increase in price, the Government can not lose; and so, coupled with this provision against speculation, which would impose on the Government, there is another to which Professor Rogers alluded, namely, that any one adjustment up or down of this pair of prices should never exceed 1 per cent, even if the index number says it should.

If the index number indicates that we ought to raise or lower it  $1\frac{1}{2}$  per cent, we shall only do it 1 per cent in order to avoid such possible speculation, and then wait over until next time to adjust it further, if necessary.

In the meantime, you only have a partial adjustment of that stabilization, but calculations from our actual experience with changing price levels show it to be very rarely that this provision would have to be invoked, and that when it did it would only be a trifling lack of adjustment which would be left

over, and we would be in any case better off than we are now, where we would be without even that partial adjustment.

I might as well allude to the answer here of the objection which Professor Rogers raised. I will say that I have, in the book, partially answered the objection which he raised; but he put a little different twist on it, which, as a matter of fact, is the only constructive contribution or criticism on this plan I have seen for 10 years.

Professor Rogers is a very acute man. I have been having this thing run the gantlet of criticism for 10 years, and ordinarily I simply find the same criticisms over and over again. All the questions asked yesterday were answered, as I think, in the book, but Professor Rogers did bring in a new point that is not covered in the book, and under very rare circumstances I think his objection would have substance. Although the bill provides against the injurious effect of speculation in gold for any individual adjustment, we might theoretically have a situation where, as he expressed it, there would be deficits or shortcomings of adjustment.

You adjust to-day 1 per cent, whereas the index number shows that you ought to have adjusted  $1\frac{1}{2}$  per cent. Two months from now you adjust another 1 per cent, but suppose you are still short, perhaps even more than a half of 1 per cent, perhaps the whole of 1 per cent. Two months later you adjust still another per cent, but suppose you are still short?

If there accumulates a shortcoming of several per cent—say, to be extreme, 10 per cent—a speculator might think: "It is pretty certain that the Government will have to advance its price 1 per cent every two months for three or four times in succession before it can make an end of this 10 per cent accumulation."

Now, the provision in the bill which prevents the speculator from making a profit out of the Government in any one of these jumps by itself may not prevent the gain that he could make if he waits through two or three adjustments, because he has only to pay this brassage charge once, whereas the increase in price that the Government makes in its gold may be, say, three times 1 per cent. There is, therefore, a chance that he will make 2 per cent in the course of the next six months, so that there would still be a chance to make a profit.

The objection as so far stated is fully answered, I think, in Appendix I of the book, aside from the answer which I am about to make. But Professor Rogers's addition to the objection is that a foreigner, say, a British speculator, who would attempt this would have the advantage, unless Great Britain at the same time adopted this system of having two gold standards, one in Britain of fixed weight and the other here of a constantly increasing weight of gold, and that there would be a special opportunity to him and a special temptation to him.

So that under very rare circumstances, unless this objection is met in some way, the Government would be out of pocket a little bit on account of the speculation. No harm would be done to the stabilization, but there would be occasionally a small expense to the Government.

Professor Rogers said this ought to be provided against, and he is right. He said, in answer to a question of Mr. Wingo, that he did not think it was an important objection. I understand exactly what he had in mind, but he gave the impression, I think, to many of you that he thought it was essential that this should be provided against. It is no more essential that this be provided against than that the original speculation I referred to should be provided against. But it is desirable that it be provided against, not for the sake of stabilization, but for the sake of avoiding the imposition on the United States Government, which might otherwise—very rarely and in small amounts—take place.

It can be very easily provided for—there are several ways—but the simplest and completest way, and therefore the only way I think it is necessary to take your time to discuss, is to have the cooperation of the Federal Reserve Board in this process of stabilization, so that there would never be any "accumulation of deficits." This brings me to the subject I have mentioned at the close of my testimony yesterday. You remember I then said that in order to secure a smooth-working stabilization which would keep the purchasing power of a dollar within say, 1, or, at most 2, per cent of a fixed par, we need the cooperation of the Federal Reserve Board. When I said that, I think I gave a wrong impression, just as Professor Rogers gave a wrong impression when he made his point. I think I made the impression on some of you that unless you were

to have the active, explicit help of the Federal Reserve Board, the system provided for in this bill would not work. I did not mean to say that; I meant simply that it would not work quite as smoothly. Even if the Federal Reserve Board were really hostile to this—which I have no reason to believe—even if they should try to circumvent this, nevertheless this act would itself constantly limit and thwart their efforts to spoil it. Yet the obstacles being thrown in the way would of course always throw the index number out of line a little more than it would otherwise go. I overstated it in my haste yesterday when I spoke about the harm that might be done.

Let us see how that would work under present circumstances: We now have a Federal reserve system with a reserve of about 75 per cent. I think day before yesterday that was the figure; I have not looked at it for the past few days. They are required by law only to have a reserve of 40 per cent against the Federal reserve notes and the deposit liabilities of the member banks.

Mr. STEVENSON. It is 35 per cent against the deposit liabilities.

Professor FISHER. It is 35 per cent for deposits and 40 per cent for notes.

Mr. STEVENSON. And they have covered up the fact that they have over 100 per cent against the Federal reserve notes?

Professor FISHER. Yes.

Mr. STEVENSON. Because they are dividing the reserve by the sum of the reserve notes and of the deposit liabilities, whereas they should have set aside 35 per cent against deposit liabilities and the balance as the reserve against Federal reserve notes. But when it got so large, the farmer, on account of the contraction of the currency being so great, complained so that they have shifted it and have gone to making a muddled statement, which is not a candid statement. I want to register my objection to it right here in this record.

Professor FISHER. I am glad to have you bring that out, although I see very good reasons for trying to avoid that popular clamor, which would otherwise lead to inflation.

Mr. STEVENSON. They ought to have the backbone to stand up against popular clamor and give us a correct statement.

Professor FISHER. Exactly; that is what is necessary. To get smooth working in the Federal reserve system it is necessary to have backbone. Suppose there was not backbone, for the sake of argument. I am not saying it is so. But suppose there was not backbone and suppose the Federal Reserve Board, under pressure from people who wanted inflation or wanted what we call inflation, without their knowing it, perhaps, should try to increase the circulating medium while under this new system you are trying to decrease it. There you have a conflict between two agencies of the Government: This agency of the mint buying and selling gold and the agency of the Federal Reserve Board regulating its credit. What would happen? That reserve, which is now 75 per cent, would be falling all the time, because every time there was any effect on prices coming from the credit inflation of the Federal Reserve Board the computing bureau would immediately report to the mint that the index number was going up, was above par. The mint would, therefore, always be increasing the size of the dollar, that is, lowering the price of gold. Consequently, as the dollar was raised 1 per cent every two months, the number of dollars in this reserve would constantly decrease until it got down from 75 to 60, 50, or 45 until the clamor for inflation would cease since the Federal Reserve Board would then point to its dwindling reserve, and say: "We can not do this any more." We must stop this over-extension of credit or our reserve ratio will go below the legal minimum. So there would be a check on any attempt of the Federal Reserve Board to run away.

Mr. STEVENSON. Doctor, you overlook the fact that you automatically, by your bill, reduce the reserves of the Federal reserve banks—

Professor FISHER (interposing). That is what I am coming to—

Mr. STEVENSON (continuing). From 40 to 20 per cent on Federal reserve notes outstanding, and on the other liabilities. In other words, you split them in two, because, under your bill, we do not have to keep gold as the reserve. You specifically provide that all they have got to do is to keep these reserves that have only 50 per cent reserve back of them, whereas now they would have 100.

Professor FISHER. I am glad you brought that out, Mr. Stevenson. Let me clear it up in this way: I have used the word "reserve" this morning in two

senses—first, in reference to this bill, and second, in reference to the Federal reserve system. Of course, the word "reserve" is used in a dozen different senses.

Mr. STEVENSON. I am talking about gold reserves.

Professor FISHER. Yes; I know, but you have gold reserves in different senses—for State banks and for National banks.

Mr. STEVENSON. I am talking about gold reserves of the Federal reserve banks; that is the point I am directing your attention to in this instance.

Professor FISHER. But I, myself, have this morning confused the statement, I am sorry to say, by using the word "reserve" in two senses without explaining it.

As regards this bill, the 50 per cent reserve to which I alluded to start with, merely means that we set aside only half of what is now behind our gold certificates. But the volume of gold certificates remains the same; it is not expanded or decreased at the start of this system. Of course, after that it is adjusted according to the system. That is purely a 50 per cent reserve against gold certificates. Of course, we would change to gold bullion dollar certificates, and they are no longer warehouse receipts, but the volume is not increased or decreased by the initiation of this act at all; it is simply the Government gold reserve behind them that is split in two. Part of it is taken over into a different fund and used and brought back only as necessary. It is really just in order that the Government reserve shall always be a uniform 50 per cent.

The bank reserve of the Federal reserve system is under the present Federal reserve act and is not a reserve of gold against gold certificates, but is a reserve of gold certificates against Federal reserve notes and deposit liabilities.

Mr. STEVENSON. Not exactly, Doctor. You are in error there both in theory and in actual practice.

Professor FISHER. In what way am I in error?

Mr. STEVENSON. In other words, you take the position that, in theory as well as in actual practice, there is not any gold back of the Federal reserve notes directly, but only gold certificates. Now, you are in error about that, Doctor.

Professor FISHER. Yes; I understand there are now gold and gold certificates both. But we would substitute for the gold the new gold certificates under this bill; that is part of this bill. It practically gets rid to start off with of all gold in circulation or in the banks. So that as soon as this system is started, then this 75 per cent reserve of the Federal Reserve Board would consist exclusively of the new gold bullion dollar certificates.

Mr. STEVENSON. That is the very point I want to ask a question about. These gold-bullion-dollar certificates, if there are \$100,000,000 of them, there is \$50,000,000 of gold behind them.

Professor FISHER. Yes; and another fund that could be thrown into it when needed.

Mr. STEVENSON. But the item against them is \$50,000,000?

Professor FISHER. Yes.

Mr. STEVENSON. Suppose you took all of the gold certificates and all of the gold behind the Federal reserve notes and put all of this 75 per cent reserve in these gold-bullion-dollar certificates. You would only have 37½ per cent of actual gold then behind them, would you not?

Professor FISHER. You can so regard it if you put the two systems together.

Mr. WINGO. That is the point I am driving at, that you automatically by your bill mathematically reduce the reserve.

Professor FISHER. If you would like to put the two together.

Mr. WINGO. And you know what the effect of that always is from the standpoint of inflation?

Professor FISHER. Let us see what it will be; that is what we were trying to say now. What will it be? You will have 50 per cent of actual gold behind gold-bullion-dollar certificates. Then you will have 75 per cent, if you adopt the system to-day of gold-bullion-dollar certificates behind the obligations of the Federal reserve bank.

Mr. WINGO. Not necessarily.

Professor FISHER. Exactly; absolutely.

Mr. WINGO. Not necessarily.

Professor FISHER. Because the gold would all be replaced by gold-bullion-dollar certificates.

Mr. WINGO. You do not catch my thought. I may be in error. You have not got enough gold certificates in existence now to cover the reserve that is re-

quired against Federal reserve notes. The gold bullion in the Treasury redemption fund, according to the statement issued yesterday, you have only got \$707,000,000 gold certificates outstanding; you have only got a gold redemption reserve fund of \$2,224,000,000. Now, the gold bullion in the Treasury is represented by an item of \$2,962,000,000. The actual gold in the general fund is only \$191,000,000. You have got a reserve requirement of gold certificates of 100 per cent. You are going to destroy the coinage of gold, and you will have nothing but gold bullion—actual gold. Now, you will issue certificates against that gold bullion?

Professor FISHER. Yes.

Mr. WINGO. The only difference in that gold certificate and your present certificate is that the present certificates are mixed in your gold coin and gold bullion. If your bill became effective you would have gold bullion back of it?

Professor FISHER. Yes.

Mr. WINGO. Under the law, the Federal reserve law, we require only 40 per cent of gold back of the Federal reserve note. Whether that gold be represented by a direct deposit of gold or a warehouse receipt for gold, the effect is the same.

Professor FISHER. Yes.

Mr. WINGO. Now you automatically reduce the amount of reserve back of gold certificates outstanding, and you drive all coin out of circulation. So all your reserve, because it will be easier, will be in the gold bar certificates, and you will have in the Treasury only 50 per cent of actual gold back of them. Therefore, when the Federal reserve bank puts into its reserve pile 40 per cent in these gold certificates, then those gold certificates only have got back of them one-half of the gold. You have mathematically and automatically reduced the amount of actual gold against the Federal reserve notes by 50 per cent, have you not?

Professor FISHER. Yes. I understand you better now, I think.

Mr. WINGO. The point I am getting at is, has not the reduction of reserve always been the basis of expansion?

Professor FISHER. It will not under this system.

Mr. WINGO. What is to prevent it?

Professor FISHER. You would then have what is now the 75 per cent reserve in the Federal reserve system, all represented by gold bullion dollar certificates. They will all be paper. You will only have one gold reserve, a Government reserve, back of them. All the bank reserves will be gold certificates. The banks will not handle any gold at all; the Government will be the only handler of gold. You will have two steps in redemption; if you want to redeem a Federal reserve note, you will redeem it in gold bullion dollar certificates. If you want gold, you would go to the Government just as you would now go with the yellow back. It is quite true theoretically that your reserves have been cut in two, but it is only a matter of bookkeeping, because the other half is there and can be used as required and as long as it will last, and if it should ever give out then we would get down to the actual—

Mr. WINGO (interposing). Permit me right there to say this, so that you can follow me: You are proceeding from the viewpoint of the present abnormal conditions. You know if the world gets back to a normal basis, that those abnormal reserves of gold, our accumulations of gold, will fade away. If that be true and you only require 50 per cent reserve against the gold certificates outstanding, you will make it possible, and, of course, there will come a time sooner or later when it will be profitable to get that gold.

Professor FISHER. Yes.

Mr. WINGO. And take it out?

Professor FISHER. Yes.

Mr. WINGO. And it will be possible to have it on the basis you have got it to-day. Under your bill you would only have \$350,000,000 in gold reserve back of your gold certificates in the Treasury, and you would have outstanding nearly three billion pieces of paper money that could take that gold out of the Treasury.

Professor FISHER. Let me come to that point—

Mr. WINGO (interposing). You would have only about 10 per cent actual reserve against the demand that may be made on that. In other words, you would have not only gold certificates but you would have approximately \$3,000,000,000 of Federal reserve notes that you could come to the Treasury and demand payment of. If they gave you gold certificates you could turn right around and say, "Give me gold on the gold certificates." And the point I am making is that you would automatically reduce the gold reserves by using the paper

money outstanding to make a demand on the Treasury, to a point where it would be possible to have only 10 per cent reserve; and then you would force the Treasury to go into the gold market and buy gold, unless these other nations had the same standard; you would have the Treasury in a pretty bad mess, would you not?

Professor FISHER. All your reasoning is based on our present system, where you have a fixed-weight dollar, and your objection disappears just as soon as you realize the workings of the variable-weight dollar.

But, in order first to proceed in the direction I was going, I will come back to that in a moment. What I was trying to show when you asked your question was that we would bring a limitation to bear on the Federal Reserve Board in case the Federal Reserve Board was not cooperative in reference to this plan, but was actually hostile. I was in process of trying to show how we would then curb the Federal Reserve Board. I showed that it would really result in a larger and larger dollar, which would reduce the number of dollars in the Federal reserve system, which is 75 per cent reserve now, of gold bullion dollar certificates. As they gradually contracted under the working of this plan the number of dollars would reduce until it got down to 40 or 35 per cent, or within that. So the Federal Reserve Board, in order to operate, would then be required to keep the law, and could not go on lending out, for it would not have it to lend.

Mr. WINGO. How would it reduce?

Professor FISHER. Either by getting rid of the gold or by cutting down the volume of the Federal reserve notes, because, under this system which I explained, if you increase the size of the dollars in a certain physical mass of gold you decrease the number of dollars in it. Twice that number is the number of outstanding gold bullion dollar certificates—the reserve which the banks have, and instead of being 75 per cent it will sink—it will be constantly being canceled until it got down—

Mr. WINGO (interposing). I can not understand how it will sink. You are going to reduce the reserve requirements. The \$375,000,000 they have to-day is not reserve requirement.

Professor FISHER. We are not changing the Federal reserve requirements in this bill.

Mr. WINGO. The only way in which the Federal Reserve Board banks could reduce the actual reserve they hold—not the legal reserve—would be either to get rid of the gold it has or increase the volume of the notes.

Professor FISHER. Under the operation of this system, as your gold dollar increases in weight, the Government will cancel a certain amount of the gold bullion dollar certificates outstanding as they come into the possession of the Government, so as to keep the 2 to 1 ratio. This will reduce the outstanding gold bullion dollar certificates available for bank reserves until the Federal reserve ratio will no longer be so big as to be a temptation toward inflation.

Now, let me go back and answer the question Mr. Wingo asked: When the time comes that there is an outpouring of gold from this country to other countries, will that not produce a new danger to our gold reserve? The answer is no, because as soon as you have the contraction felt it will reveal itself in the tendency of the price level to go a little below par, and as long as it stays below par you would be decreasing the size of a dollar 1 per cent every two months, which would be increasing the number of dollars in the physical mass of our gold. Thus the number of dollars would be increasing to compensate for the physical abstraction of gold. You will do that just as far as necessary to maintain the price level, which is the one thing you are going after.

Mr. WINGO. The only thing you would do would be to substitute the United States buying gold instead of having the international bankers buying as they are now?

Professor FISHER. I do not understand that question.

Mr. WINGO. If you should do what you said you would—and that is the only answer you can make, that all the change in the volume of money that you authorize, if this flow started out you would automatically counteract attractiveness of flowing out by making the greater attraction here to hold it in?

Professor FISHER. That is part of it.

Mr. WINGO. If you did that—that is the way the international bankers do now.

Professor FISHER. Yes.

Mr. WINGO. If London or New York finds gold is flowing out in such a way as to interfere with exchanges, they automatically buy gold, do they not?

Professor FISHER. Yes.

Mr. WINGO. That is the way they do it. Now, you propose to have the United States Treasury to do that automatic buying, so as to maintain the flow of exchange?

Professor FISHER. That is one way of looking at it, but that is only a small part of it. It is true, the price of gold would be increased in this country.

Mr. WINGO. That would be the effect of it?

Professor FISHER. Yes; that would be the effect.

Mr. WINGO. I am trying to find what the actual workings of the bill are.

Professor FISHER. We would be bidding for the gold, because we would be raising our price. That would be lowering the size of the gold dollar, which would be increasing the number of dollars in the physical mass of gold. Now, if you had, say, a ton of gold in this country—I do not know how many dollars there are in a ton of gold, but two billion, or whatever it is—instead of its being \$2,000,000,000 it would go on to three billion or five billion, and our gold reserve in dollars would be compensated by that fact more than it would be by the attraction of actual physical gold. Even if our physical gold shrank, the number of dollars in it might rise.

Mr. WINGO. Under your plan I can not see how, if you maintain the equilibrium. If you are going to take out of all these Federal reserve banks and take out of the pockets of the people all gold coins and everything else and concentrate it in the United States Treasury, then the only way the international bankers could get gold out of the United States would be a drain on the United States Treasury. There would not be any free gold used for commercial purposes that would pass through the United States Treasury.

Professor FISHER. That is the way it is now.

Mr. WINGO. To a large extent they call now on the Treasury to get it, but still they have a floating mass of bars that are sometimes never unpacked at all; they just ship them back and forward across the ocean, without calling on the subtreasury or the mint.

Mr. STEVENSON. Just one question right there while you are on that proposition. In section 10 you provide:

"That the Secretary of the Treasury shall divide all the gold against which gold coin certificates and gold bullion dollar certificates are outstanding at 3 o'clock a. m., January 8, 1924, into two parts, one part to be known as the reserve against outstanding gold bullion dollar certificates and equal to 50 per cent of the value of the gold certificates then outstanding and the remaining part to be known as the surplus in excess of said reserve."

These gold-bullion certificates are to be issued to the extent of the entire gold and 50 per cent of the gold is set aside as reserve against that. So there are \$3,000,000,000 of gold to get into the pot. The Secretary of the Treasury divides that into \$1,500,000,000, which is reserve, and that is reserve against three billions of gold dollar bullion certificates, as I understand it. Then he transfers the other \$1,500,000,000 into the general fund of the Treasury as the initial profits of the new system.

You say if there are fluctuations that the gold reserve may be replenished from that fund. Take the present situation; the general fund of the Treasury is going to have a deficit of \$650,000,000 to a billion dollars this year. What is to prevent the Treasury from sending the \$1,500,000,000 and leaving only the \$1,500,000,000 that is in reserve, if you put it in the general Treasury fund? What is to prevent that? That is a practical question.

Professor FISHER. That is an objection, and I think it would strengthen the bill if you put that into a special fund, not in the general fund.

Mr. STEVENSON. In other words, keep it all as reserve anyhow—if you keep it in a special fund, it would be equivalent to reserve?

Professor FISHER. The only difficulty would be in publishing the figures, the Governments "reserve" would show as 50 per cent; the other gold would be a variable per cent and would not remain 50 per cent.

Mr. STEVENSON. I have not yet understood in reference to the 50 per cent?

Professor FISHER. That is not necessary. You can make it 100 per cent, if you like. The only idea was that you would safeguard it against possibly having to make the Government spend money for the system when you start out.

I was coming to this matter of the action of the Federal Reserve Board. I have shown that if the Federal Reserve Board should be hostile, this bill would automatically put a curb on them, nevertheless. They would be putting obstructions in the path, but eventually these would be removed, and we would be on a fairly stable basis as a consequence. Of course, we would get

a better stabilization if we have the cooperation of the Federal Reserve Board; and if we have their cooperation and they are trying to stabilize by adjusting the rate of discount and by other methods—because there are several things they can do which are not of this mechanical, automatic nature, but discretionary—they can adjust the discount in such a way as to discourage inflation and deflation; they can substitute gold certificates for the Federal Reserve notes or *vice versa*, and thereby putting their gold reserve into circulation. They are doing that now.

They can also do another thing which Professor Sprague of Harvard has worked out—I do not want to take time to discuss that, because that is no explanation. But the Federal Reserve Board can do several things to prevent inflation and deflation. If they were doing these cooperatively, we could steer the dollar, as an automobile, in almost an absolutely straight line. While this bill would work fairly well without the cooperation of the Federal Reserve Board—and I might add, the mere discretionary efforts of the Federal Reserve Board themselves would work fairly well without the cooperation of this bill—still the two together would give you two legs on which to walk instead of hopping on only one.

I therefore suggest there ought to be coupled with this bill a definite understanding of some sort with the Federal Reserve Board. Perhaps you can make a statutory arrangement by which they understand that they are not only authorized but directed or expected to cooperate in producing stabilization.

That having once been declared by legislative act to be the policy of the United States, the Federal Reserve Board would then be a means of helping this out.

Then this situation that Professor Rogers spoke of could never arise, because any small shortcoming in the bimonthly adjustment, due to particular circumstances of the situation where gold is really depreciating faster than 1 per cent every two months, could be speedily made up by the cooperation of the Federal Reserve Board. There would then be no cumulation possible and any one who tried to speculate could never be assured of a gain; he would be taking a big risk and the cases where speculation would occur, would be very, very infrequent.

Mr. GOLDSBOROUGH. Subsection D of section 14 of the Federal reserve act is, with reference to the powers of the Federal reserve banks:

“To establish from time to time, subject to review and determination of the Federal Reserve Board, rates of discount to be charged by the Federal reserve bank for each class of paper, which shall be fixed with a view of accommodating commerce and business.”

What would be your idea of amending that section to read: “To establish from time to time, subject to review and determination of the Federal Reserve Board, rates of discount to be charged by the Federal reserve banks for each class of paper, which shall be fixed with a view of accommodating and stabilizing agriculture, commerce, and business, and preventing deflation and inflation”?

Professor FISHER. I think that would be an excellent thing to couple with this measure.

Mr. WINGO. We had that proposition up when we wrote that section, and the language “commerce and agriculture” were deliberately cut out. The judgment was that the Federal Reserve Board should not have the power to dictate prices by undertaking in its arbitrary judgment the so-called stabilization. The Federal reserve banks were intended to be the servants, not the masters, of the credit merchants of this country—that is, the country bankers—and they have undertaken and do now claim the very authority that the gentleman from Maryland suggests you might give them?

Mr. GOLDSBOROUGH. No.

Mr. WINGO. In spite of the fact that Congress refused to give them the power to control prices, because your whole bill is predicated upon the theory that if you increase the volume of gold in a dollar, or if you decrease it, you automatically affect the prices of commodities, do you not?

Professor FISHER. You automatically prevent prices from being affected; that is a very, very different thing.

Mr. WINGO. You do it by changing the volume. In other words, you say that now you have a fixed volume, you want us to fix the value. Your whole theory is that the danger of inflation is that when you have a large volume of

credit you have a larger volume of money; that decreases the purchasing power and causes a rise in prices.

Professor FISHER. Yes.

Mr. WINGO. While the converse is true, that whenever the man who sits at the throttle of credit closes that throttle and reduces the volume of credit he automatically decreases the price of commodities, does he not?

Professor FISHER. Yes.

Mr. WINGO. Do you think in a free government that any bureau ought to have that power?

Professor FISHER. I do not; and that is what I am trying to prevent, sir.

Mr. STEAGALL. All the criticism directed at the Federal Reserve Board grows out of that power.

Mr. WINGO. All the criticism directed at the Federal Reserve Board can be traced back to that exercise of power that we refused to give them and translate "accommodating" into "control."

Professor FISHER. I quite agree with the spirit of your objection, Mr. Wingo, but absolutely disagree with the practical conclusion which you make in regard to legislation. I absolutely agree that the Federal Reserve Board ought not to have the power to produce inflation or deflation, and they have it and they exercise it.

Mr. WINGO. What we ought to do is to make this so that it will hold the Federal Reserve Board to confine itself to the authority given it; and under the rules of interpretation, if they will refer to the records of this committee and to the records of Congress, they will know that Congress specifically said, "You shall not have that power."

Professor FISHER. What power?

Mr. WINGO. The power to control the volume of credits for the purpose of fixing prices or stabilizing prices. Nine-tenths of these men talk about fixing prices by that means. If the fellow who wants to buy thinks the price of the stuff he desires to purchase is too high, he wants stabilization; if the fellow who wants to sell it feels that the price is getting too low, his idea of stabilization is to raise it, and we said, "You let the local banker and his merchant and his farmer, or whoever he is dealing with, determine the volume of credit that he is going to risk for his stockholders and his depositors, and the only thing the Federal Reserve Board can do is to say, 'Is this the character of paper or security that is made eligible for rediscount, and within the limits we will grant that.'" It is not the judgment of any bureau sitting in Washington to say, "Well, we think that the wheat grower is acting a fool in holding his wheat; he ought to go and sell at the time he garners, and we will just force him to do so by taking away from him the instrument by which he can exercise his judgment freely." I think chattel slavery of negroes was absolutely less immoral and less detrimental than the slavery of exercising control over the wheat farmer or the cattle grower and saying "You have got to sell your stuff at a particular time."

Professor FISHER. I agree absolutely that the Federal Reserve Board ought not to have a chance to interfere in the wheat market or, at its sweet will, to make prices go up or down, and I am not talking about the wheat price but about the general level of prices, which is an entirely different thing from the wheat price.

Mr. WINGO. I acknowledge that, and I get outraged when I recall the men who sat around this committee in 1913 and know that one of the fights against the Federal reserve system by the men who talk about preserving it against demagogues—the only fight was that "You will not give us this so we can control it"; and when we refused to do it they damned it and said it was bad. But now they seem to be sitting in the seats of the mighty in the system and saying, "To hell with Congress." We will determine that the word "accommodating" means control.

Professor FISHER. It ought to be stopped, and I am proposing to stop it.

Mr. WINGO. I thought we had a President of the United States and a Federal Reserve Board that would make them stop it.

Professor FISHER. This will stop it. Under the present system the Federal Reserve Board has twice, under pressure, first from the Treasury and then from public opinion and a resolution in the United States Senate—under those two pressures have produced inflation and deflation and they have been disastrous.

Mr. WINGO. But you do not find the real friends of the Federal reserve system engaging in that kind of business. And the man who was author of that resolution in the United States Senate does not know any more about the philosophy of credit than my 10-year-old boy, and shows it by his own utterances and by his own resolution.

Professor FISHER. It happened twice. After the armistice we had an easy-money policy, which was a terrible mistake. The result was our prices inflated 25 per cent, until the Federal Reserve Board got scared; and the public demanded deflation, a Senate resolution demanded deflation, and deflation came, and then we were nearly shipwrecked.

That does not help the farmer, that did not help the business man, that did not help the laboring man, and did not help anybody, and both of those operations of inflation and deflation were a mistake.

If we had had these few words that Mr. Goldsborough read in the Federal reserve act, those things would never have happened, either of them.

Mr. WINGO. That is what they did; they did what you propose to authorize them to do; they undertook to control—

Professor FISHER (interposing). No.

Mr. WINGO (continuing). And they said, "We want to stabilize prices; you have got them too high."

Professor FISHER. No; they didn't stabilize, they contracted. You have an absolute guide in this bill, namely, the index number.

Mr. WINGO. How is that going to affect the volume of credits?

Professor FISHER. The Federal Reserve Board, if they had had an index number to guide them in 1918, would not have allowed the inflation to occur and so to raise the price level 25 per cent. They would be watching the index number, and as soon as it went up 1 per cent they would have raised the rate of discount and stopped it.

Mr. WINGO. Whoever lodged such an authority with them? It may be bad policy for me to live beyond my income, but as a free-born American citizen I have got a right to live beyond my income. It is not the right of government to control expenditures.

Professor FISHER. It is the right of the Government, under the authority of the United States Constitution, to regulate and determine the value of money.

Mr. WINGO. But not the volume of credits.

Professor FISHER. It does not do it.

Mr. WINGO. The Constitution of the United States does not give that power.

Professor FISHER. The volume of credit should fit the necessity. If it is a misfit, it does great harm. I am after the same thing you are after—to accommodate business. But the best way to accommodate business is to have a stable price level. That is the most important thing.

Mr. WINGO. But you can not get it by governmental ukase.

Professor FISHER. The only control of price level now is—

Mr. WINGO. You will pardon me. It is the most vicious form of socialism to say that a governmental agency will undertake to control the volume of credit.

Professor FISHER. That is not the same thing.

Mr. WINGO. To me the volume of credit is a matter between myself and my banker. If I want to add another unit to my manufacturing plant, when there is already an overproduction; or if I want to shut down my steel plant, and go to my local banker and say, "You loan me the money to carry my overhead," that is a matter between my banker and myself. It may be bad for the public, but it is not the function of the governmental agency to absolutely sit upon the judgment of one set of individuals against the judgment of all the rest of the individuals upon a question of private business. Every time we have experimented with it we have floundered around and come to failure.

Professor FISHER. You have come to a terrible failure without it.

Mr. WINGO. In other words, you contend democracy and free government have failed, and you want to set up an automatic law to make people use better judgment. It has failed in accommodating business because interpretation of the power over the banks was that they should not accommodate business and meet their demands when it comes in a given channel, but they must "control" and say, "Here, we do not need this accommodation."

Professor FISHER. Using your own terms, you want to deprive the Federal Reserve Board of the power to do what they have done?

Mr. WINGO. No. They have not got the power to do what they have been doing. They have been arbitrarily assuming that power. One member of that board said to a cotton farmer, "You need not sell your cotton; I have been up

to New York and we are going to hold up the price." I would benefit by any effort to hold up the price, but by the same token, if you have power to hold it up, if it is right sometimes in your judgment to hold it up, that same judgment might say it is right to put it down. I do not want any governmental agency to have the power to fix prices of commodities, either directly or indirectly.

**Professor FISHER.** There are two elements in the price of cotton. I quite agree with you that it is none of the Government's business to meddle in the price of cotton.

**Mr. WINGO.** Cotton and steel. I used "cotton" as an illustration. The same thing is true of steel.

**Professor FISHER.** But they should prevent an ingredient going into the price of cotton that belongs not to cotton but to money. There are two elements now in the price of cotton; one concerns the supply and demand of cotton. That is not interfered with by stabilization. The other relates to inflation or deflation of money, and that element ought to be taken out of the price of cotton in the interests of the cotton grower and of us all.

**Mr. WINGO.** But that is different from stabilization, so-called, of credits. One great financier at one time before a Congressional committee, when asked about the gold standard and the silver standard, smiled and said, "I do not care what your standard is. Let me sit at the gates of credit and take my toll, and you may have any standard you want."

And there is the trouble; you confuse stabilization of the value of your standard dollar with a control automatically of credits.

**Professor FISHER.** But your control of credits has to go with it. You never can divorce the two. There is where Edison made a mistake in his plan, where he thought he had stabilized money without taking any account of credit. Your credit to-day is almost the whole thing.

**Mr. WINGO.** I agree with you.

**Professor FISHER.** And the credit has got to be stabilized if you are going to stabilize the dollar. If you admit it is an important thing to stabilize the dollar you will admit it is an important thing to stabilize credit; and the stabilization of credit does not mean anything as to the individual cotton grower or the man who wishes to extend his factory. On the contrary, if you get business on an even keel, you will not get into these terrible situations we have been in during the last three or four years, which have come from the fact that the Federal Reserve Board had no policy in regard to the price level. Give them a policy, and you get out of all that.

**Mr. WINGO.** They claimed they had a policy and tried to act under it.

**Mr. GOLDSBOROUGH.** General price levels—

**Mr. WINGO.** If you carry out your theory that you have got to stabilize the volume of credits in order to stabilize the value of money, I fear that a comparable illustration would be that the patient died but the operation was successful. I agree with you. You let me control credit; I do not care what kind of standard you have got.

**Professor FISHER.** The point is it is controlled now. It has got to be controlled, and the only thing is to have it controlled right.

**Mr. GOLDSBOROUGH.** Is it not controlled by the present banking system?

**Professor FISHER.** It is; and this is to bring about exactly what Mr. Wingo wants. I think I am through, Mr. Chairman, except for summarizing and answering questions. Summarizing, I would say:

1. The common assumption that the dollar is fixed in value is an illusion due to measuring everything else in terms of the dollar. The error is precisely the same as that of the average German who thinks the mark is constant.
2. By means of index numbers we may measure the dollar's changes. Thus in the spring of 1920 the dollar was worth a quarter of what the dollar of 1896 was worth.
3. The master causes of changes in price levels (or of the inverse changes in the purchasing power of the dollar) are not changes in the supply and demand of commodities but simply inflation and deflation of gold, paper money, or credit. Supply and demand explain the fluctuations of each individual price relatively to the general price level, but do not explain fluctuations of the general price level itself.
4. The evils of an unstable price level and dollar are not evils of general impoverishment or general superabundance, but are those of social injustice, arising from an inconstant yardstick of commerce.

5. When the price level is rising, i. e., when the dollar is falling, the chief losers are the creditors and creditorlike classes, such as savings-bank depositors, bondholders, policyholders, widows, orphans, hospitals, and universities receiving income from bonds and preferred stock, salaried persons, and wage earners.

6. When the price level is falling, i. e., when the dollar is rising, the chief losers are the debtors and debtorlike classes, such as farmers, independent business men, and stockholders.

7. In the long run practically everybody loses, because each up or down swing is apt to bring an opposite reaction and because of the lessening of production which instability and uncertainty create.

8. When prices are rising the complaint is of the "high cost of living," and when prices are falling, of the "depression of trade" and unemployment.

9. One of the evils of the unstable dollar is the "business cycle," consisting of boom, crisis, depression, liquidation, boom, and so on, in a vicious circle.

10. One of the evils of instability is social discontent. The discontented, not realizing the real cause of their distress, vent their wrath in a class struggle, sometimes with bloodshed and revolution. Falling prices stimulated populist ideas and rising prices socialistic.

11. The remedy in the Goldsborough bill is to compensate for each 1 per cent deficiency in the purchasing power of the dollar by a 1 per cent increase in its weight, and vice versa.

12. By an increase or decrease in the weight of the dollar is meant simply a decrease or increase in official prices of gold. Actual gold coinage would cease, and gold would circulate only in the form of paper—gold-bullion dollar certificates.

13. The adjustments in the prices of gold would be made bimonthly by the Bureau of the Mint, on receipt of the index number figure from the computing bureau.

14. To avoid gold speculation injurious to the Government, the price at which the Government sells gold would always be 1 per cent higher than the price at which it buys gold, the difference being called "brassage." No adjustment at any one time is to exceed this 1 per cent margin.

15. The Government's gold reserve against the gold bullion dollar certificates would be kept at, say, 100 per cent by recalling and canceling or printing and issuing the number of certificates needed at any time to restore this correspondence between reserve and certificates.

16. The smooth working of the system would be facilitated if the Federal Reserve Board were explicitly authorized and directed to cooperate in stabilization through suitable adjustment in the discount rate, through interchange of Federal reserve notes with gold-bullion dollar certificates, etc.

17. This cooperation of the Federal Reserve Board would destroy the abuses of credit inflation and credit deflation, which have caused so much distress, and would thus help us realize the ideal, when every borrower can be accommodated at a price, provided he has the requisite security; just as in a normal wheat or cotton market every buyer can be accommodated, at a price, provided he has the needed wherewithal.

18. The stabilization of the gold base through the Goldsborough bill and the concurrent stabilization of the credit superstructure through the Federal Reserve Board make the two legs for steady walking. But a somewhat limping stabilization can be obtained by either one of these two.

19. For lack of an effective stabilization policy the Federal Reserve Board has contributed toward the inflation following the armistice and culminating in May, 1920, and the deflation beginning at that date and continuing for a year and a half.

20. The outlook now is ominous for a period of reflation, due primarily to the gradual utilization, in loans, of our present superabundant gold reserve. There is also danger of inflation from the soft-money propaganda, as a reaction from the recent deflation. Both dangers can be avoided by the passage of the Goldsborough bill, which would also put a stop to the hitherto constantly recurring evils of inflation and deflation.

Mr. MACGREGOR (presiding). Doctor Fisher said several other gentlemen wanted to be heard on this proposition.

Mr. WINGO. If he is though with his general statement, I want to question him.

Mr. MACGREGOR. I was wondering whether we want to sit longer now or take a recess.

Mr. WINGO. I have enjoyed the professor's statement. He does not understand me like you do. He thinks I am trying to get into a controversy. But it is like waving a red flag in a bull's face when you talk to me about a Government bureau controlling the credits of the country.

Professor FISHER. I am trying to prevent controlling; by "controlling" you mean to inflate or deflate. I want to prevent that.

Mr. WINGO. I want that prevented—not to have it controlled by somebody who will have a selfish interest in deflating one day and the next day inflating.

Professor FISHER. That is exactly the purpose of this bill. If you find a better way than this, go to it.

Mr. WINGO. I know this much: I think socialism of the character that I object to is the theory that people are not capable of handling their own affairs, and if we are going to have a benevolent governmental agency that is going to just tell everybody how much money to spend and how much money to borrow at the bank, when to sell steel and plows, cotton and wheat—

Professor FISHER. I am as much opposed to that as you are.

Mr. WINGO. You talk about "the public demand." The public is not represented by the group who demanded. The public who were represented protested vociferously both to their official representatives and others against that policy. The representatives of the cotton growers protested against the policy of a certain gentleman in the Cabinet who conceived the idea that he was going to take care of the cotton farmer, and he started out on the scheme of stabilizing the price of cotton; and if we had not come down and threatened to mob him if he did not lay hands off and stop playing Lenin and Trotski, no telling what would have happened to the wheat grower and cotton grower.

I will tell you about the people who are back of what you characterize as the spirit of populism in the West. They can not always understand the why and wherefore, but they say, "Somehow this great Federal reserve system that we thought was going to liberate us from dictatorial, autocratic control that refused to let us have money and credits when we needed them is undertaking to bawl us out, like a doctor does to a patient, "'You must have just so much.' You have no right to hold cotton and wheat." Have they any right to tell me that I must close down my factory if I want to keep on producing, because if they have a right to say to the cotton farmer and the wheat farmer, "You have no right to hold off selling your wheat and cotton," then they have a right to say to the steel factory and furniture factory the same thing. The viciousness of it is the same, and I protest as vigorously if you try to make the manufacturer go on and put his product on the market as when they undertake to tell that wheat farmer and cotton farmer to do the same thing.

Professor FISHER. So do I.

Mr. WINGO. If the wheat farmer wants to put it in a bin and hold it for a fair price that is his inalienable right, and nobody has a right to forbid him.

Professor FISHER. This is not controlling the price of an article. It is controlling the rate of interest. They do it now; they do it badly. I propose that they do it well, so as to stabilize business and the price level.

Mr. WINGO. That is what every autocrat says, whenever you give him autocratic control.

Professor FISHER. They have it now. We want to take it away from them; this will take it away from them.

Mr. WINGO. I doubt it very seriously, Professor. You admit it won't affect the volume of credit. Suppose you standardize the dollar just as you suggest; suppose that standardized dollar had been in existence in 1920 when Governor Harding called these men together. He really believed that the country was headed for the demnition bow wows if they did not make people pay their loans in the Cotton Belt and wheat belt. Suppose you standardize the dollar, do you think that would have kept them going on?

Professor FISHER. Of course, they could not have brought the price level down 45 per cent in that law.

Mr. WINGO. You overlooked this: Suppose your bill was in effect. Who is going to determine what these commodities are? If the commodities will be not less than 75, I believe, nor more than 125, and that you would take basic products.

Professor FISHER. There is a list of them in my book.

Mr. WINGO. You would take, I presume, wheat as the basic food; cotton, wool, steel—all those different things. Suppose you had an abnormal condition; suppose this year there is a demand for so many million bushels of wheat and the Lord has blessed the wheat growers throughout the earth, and that they have

produced just twice as much wheat as there was demand for. That would cause a sagging in the price of wheat, would it not?

Professor FISHER. Yes.

Mr. WINGO. It is not fair under this abnormal condition to include wheat in the index number. You must find something else more stable.

Professor FISHER. No; I think not.

Mr. WINGO. There is an abnormal condition in wheat. If you include wheat it would pull the index down?

Professor FISHER. Infinitesimally. The price of wheat, in order to bring down the index number 1 per cent, would probably have to be brought down to zero.

Mr. WINGO. So; the volume of gold in the last analysis does not always control, does it?

Professor FISHER. Oh, no.

Mr. WINGO. The law of supply and demand in the commodity market does cut some figure?

Professor FISHER. Yes; as I have stated.

Mr. WINGO. Suppose instead of there being an abnormal condition in wheat, as I have suggested, which you said would be infinitesimal—what I have said with reference to wheat applies to wool, and you had a double production of wool or a double production of copper or steel. You would have an abnormal condition all the way around, would you not?

Professor FISHER. Yes.

Mr. WINGO. And that would affect the index number more than infinitesimally, would it not?

Professor FISHER. If there is one chance in ten of each of these three things happening, there is one chance in a thousand that they all happened; and if you had six commodities, there would be one chance in a million.

Mr. WINGO. They are the basic commodities?

Professor FISHER. Yes.

Mr. WINGO. The real price level in this country is not fixed by a hundred commodities; the real price is fixed first by the demand and volume unrestricted for the basic materials for production and consumption, and you may pick a dozen of them.

In the industrial world they figure on steel as the controlling barometer. Most business men in the financial centers calculate that if the steel business is good the rest of the country is prosperous.

Professor FISHER. Yes.

Mr. WINGO. That has become almost a truism in these market report comments on the condition of trade. You may take steel, copper, wheat, wool, and cotton and coal, and the conditions with reference to the supply that is available and the consumptive demand in those basic commodities mighty near determines, if left free, the question of prosperity or adversity in the industry of the United States, do they not; those two factors?

Professor FISHER. I want to free them from the effect of monetary and credit inflation and deflation.

Mr. WINGO. Do you think that by stabilizing that dollar by using them as a basis would prevent the same cry that was raised by a gentleman who wanted to buy the products of the farm cheaper in 1920 and wanted to enhance the value of the Government bonds by that process?

Professor FISHER. I would like to make a bet with you, Mr. Wingo, if you passed this bill and stabilized the dollar that during the next 10 years the contrast in that 10 years in prosperity and production of wealth and contentment in the reduction of class war, in the amelioration of the industrial problem, of the problem of strikes and all of the great social problems we have, will be such as to astonish the world as compared with any previous decade of recorded history. I do not know how to formulate that, but I bet you just the same.

Mr. WINGO. One of the sad things from your viewpoint is that whenever we indulge in policies that are tinged from one standpoint with socialism, from the standpoint of the creditor class, that that encourages what we have termed "populistic demands on the part of the other class."

Professor FISHER. I am not taking the stand of one class against another; I simply want social justice.

Mr. WINGO. In other words, you think social justice can be brought about by legislative enactment?

Professor FISHER. To a large extent it is concomitant with it. I think when you come to establishing the unit of money it is just like establishing the

pound avoirdupois or other units. Experience has shown that it must be a Government function.

Mr. WINGO. These people make abnormal demands on the Government that you regard as populism—is that the thing they ask for? The other method of correcting social injustice is bad.

Professor FISHER. The reason for the suffering which leads them to complain would be taken away.

Mr. WINGO. And you think if you stabilize the dollar that it would take away from the group that wanted to deflate the farmer the incentive for doing it?

Professor FISHER. I am absolutely sure of it.

Mr. WINGO. How would you take away the incentive if, by forcing a lot of distressed stuff to come on the market, it automatically lowers the price of that commodity? Is not that true regardless of what the standard of value or quantity is?

Professor FISHER. I do not believe there would be any motive in bringing about any change in the value of the dollar. Of course, there could be corners in wheat.

Mr. WINGO. To use a homely illustration, Doctor, if here is a man over here [illustrating] who has a farm and I have a mortgage on it, and I want that farm. If I am able to control the credit agencies that are open to him and get them not to let him have the money so I can foreclose the mortgage, do you think stabilization of the market would take away that incentive to gobble up that farm? Do you think I will be interested in the book value of the dollar that is represented by the judgment that is on the court books and the book value of the dollar that I buy the farm in at?

Professor FISHER. You are talking about holding a mortgage on a farm?

Mr. WINGO. Yes. You say that your bill would absolutely destroy the incentive for doing what was done to the wheat, cotton, and cattle growers by the policy of deflation; and I used a homely illustration that represented the same element of greed in taking advantage of the control of credit. Suppose I had a mortgage upon a farm out here, that mortgage was falling due, and I wanted the farm, purposed to foreclosure, and if I am able to go to the different avenues of credit to which that man might appeal and control them so that they will agree not to let him have the money with which to meet my mortgage, would the stabilization of your dollar grant that action on my part?

Professor FISHER. It would go a long way toward it. Of course, I am not talking about an individual case. I do not know how greedy you would be in that case.

Mr. WINGO. Just assume I would be as greedy as the average individual.

Professor FISHER. I am talking about the average. The reason why farm mortgages were foreclosed to such a great extent was that, by deflation, prices of the farm products were reduced and the farmer was caught in a trap between the falling price of his products and fixed number of dollars that he had to pay. So his mortgage absorbed the whole farm.

You take advantage of him because he had lost the source of his income through deflation; if you stop deflation, then you could not take advantage of him.

Mr. WINGO. He not only lost the source of income, but he lost his source of credit, which destroyed the value of his productive income.

Professor FISHER. He would not need to borrow so often. If you stop deflation you reduce by 99 per cent the operation of this greed you refer to to take advantage of a farmer. Of course, there would be cases where the individual would take advantage.

Mr. WINGO. Just assume all you say is true with reference to the necessity for stabilizing the value of a gold dollar or the unit of measurement of money in this country. That still would not counteract these effects of the control of the volume of credit, because it is true, Doctor—and you will admit—that the same law applies to the volume of credit as applies to the volume of gold; is not that true?

Professor FISHER. Very well.

Mr. WINGO. And if you automatically decrease the volume of credits available, if the commodities are being handled on the credit exchanges and not on gold exchanges, you would automatically decrease the value of your own commodities, would you not?

Professor FISHER. But I do not propose to decrease them.

Mr. WINGO. I am not talking about what you propose to do. That is an axiomatic economic fact that applies to the volume of credit the same as the volume of gold.

Professor FISHER. Very much.

Mr. WINGO. In other words, there are three mediums of exchange—gold, credit, and exchange or paper credits of any kind, whether it be a cashier's draft or acceptance, or draft with bill of lading attached, or whether it be book credit on the books of a bank. It is a medium of exchange; it is a method by which the transfer of commodities or values from the producer to the consumer in the ordinary and natural channels?

Professor FISHER. Yes.

Mr. WINGO. You have not solved the whole problem; you seek to standardize those three, or when you standardize two of those three and stabilize gold you still have left to the free play the very evil, one of which you have just decried, and that is the credit-exchange instruments. You are speaking of applying exchange instruments to gold and gold certificates.

The great business of the country is not done upon gold or upon money. Especially is that true in the outlying, undeveloped portions of the country. It must necessarily depend upon credits, and credits alone are the only medium of exchange, and the volume of those credits being restricted makes the price in the country bank a great deal higher. In other words, the credit rate is 10 per cent in certain agricultural portions of the country, both of gold and paper credits, because there is a smaller available supply at hand.

The same law applies in that that applies in respect of wheat and cotton and anything else. The fact that you stabilize the basic dollar in which you figure its terms still leaves the control of the volume.

Professor FISHER. If there would be any sinister influence that would try to control credit, it would be immediately checked under this suggestion for an amendment to the Federal reserve act making it incumbent upon the Federal Reserve Board to loosen up.

Mr. WINGO. It won't take the right away from the fellow who wanted to get all the cotton and wheat and corn and other farm products at a low price, but it will take away the right from the fellow who owns the cotton and wheat, the corn, and the wool; and you would have a scramble as to who would control the boards of trade.

Professor FISHER. That would take it out of that scramble. If we do not stabilize the dollar we are going to have that scramble; we are going to have the great struggle between the inflationists and the deflationists of this country.

I want to point out something that points in the contrary direction. Governor Harding being very unpopular when this deflation occurred, and nearly if not absolutely lost his job as chairman of the board as a consequence of that determination. The policy of that board, if it is not to prevent inflation and deflation, is going to result in such discontent with the board that they are going to lose their jobs and they are going to be less independent, because whenever deflation occurs the Federal Reserve Board will be held responsible. You see from the resolutions Mr. Goldsborough has from the farmers that they are calling to account the Federal Reserve Board for this and asking them to stop it, demanding stabilization.

And I might say the same thing of Members of Congress. I spoke yesterday about the tremendous effects of unstable money on political conditions, on conditions of war, etc. I believe that the last two political overturns, that is 1920 and 1922, were partly due to unstable money. The people were discontented in 1920 with the high or rising cost of living; that played a part. In 1922 they were discontented with the low or falling prices. The farmers were discontented and the laborers were discontented because they were thrown out of jobs, and, while none of them would say in specific terms that the unstable dollar did this, yet, if you analyze it, you see that this is just exactly what it does. And just so far as you allow the unstable dollar to continue you are going to have these political overturns back and forth.

I think if one political party wants to keep in power the stable dollar is the very best thing to be used for that purpose.

Mr. WINGO. It is easy to get people to indorse a thing because they think it will do something. For illustration, we have a resolution in the House to-day on tax exemption. My judgment is that 90 per cent of the men who have studied that proposal are against it. But the American Federation of Labor, the Farm Bureau, and all these others have been told that if you just amend the

Constitution as just proposed by this resolution on tax exemption the millenium will come and that the evil of those "bloated bondholders" investing their funds in tax-exempt securities will all be cured. The political pressure is mighty strong here, and the point you have raised is a very good point with a great many gentlemen. But, Doctor, do you not know that no one thing can bring about the economic millenium?

Professor FISHER. I do. I do not think the stabilization of the dollar is the only thing.

Mr. WINGO. But you believe that the stabilization of the dollar will reduce the enormous and unconscionable spread between the producer and the ultimate consumer?

Professor FISHER. It will reduce that somewhat.

Mr. WINGO. And is not that the reason that the producers who are living very close to their budget are aroused, and are they not going to break over the restraint and are they not ready to go to smash because they say, "Here, we produce so much and can only get so much"?

In the Senate yesterday a Senator called attention to the fact that 9,000 carloads of apples in Oregon and Washington State were rotting, yet that same apple on the market of Washington is selling at 10 cents apiece. Can you not imagine the feeling of that apple producer in Oregon? He is not the philosopher that you are; he has not studied the philosophy of Government. Are you not really surprised that he is really as much restrained as he is?

Professor FISHER. I am not attributing that evil to the unstable dollar.

Mr. WINGO. It is the result of the shortage of transportation and the disastrous and expensive distribution system we have got. That is a thing that is worrying me, and the point I wanted to drive home was that you could not overcome that evil by stabilizing the book value of a dollar.

Mr. GOLDSBOROUGH. There are several people who have come great distances to address the committee, and I suggest that we now take a recess until 2 o'clock, and at that time hear them.

(Thereupon, at 12.45 o'clock p. m., the committee took a recess until 2 o'clock this afternoon.)

#### AFTER RECESS.

The committee reconvened at the expiration of the recess.

Mr. DALE (presiding). The committee will be in order.

Mr. GOLDSBOROUGH. On yesterday Doctor Fisher called attention to several curves having to do with price levels and trade levels, and I ask that they be extended in the record. I presume that that will be done as a matter of course, will it not?

Mr. DALE. Yes; unless there is some objection on the part of the committee. I thought at that time that they were introduced here that they ought to appear in the record, to make his remarks complete.

Professor FISHER. I have here a statement on this subject made before other committees of Congress, and they had them in the record.

Mr. DALE. Give the stenographer your full name, Mr. King.

#### **STATEMENT OF DR. WILLFORD I. KING, ECONOMIST, NATIONAL BUREAU OF ECONOMIC RESEARCH, 474 WEST TWENTY-FOURTH STREET, NEW YORK, N. Y.**

Mr. KING. My name is Willford I. King, and I am an economist for the National Bureau of Economic Research in New York City, an organization for impartial research. But I am not representing the bureau at this time; I am simply representing the public.

I would like to say that I indorse very thoroughly almost everything that Professor Fisher and Professor Rogers have said. It seems to me that their outline of the subject is an admirable one. I would like to emphasize, however, one or two points which seem to me to need additional emphasis.

Manifestly this bill can not be considered as a universal panacea for all ills. There is not any prospect that it will control the cotton boll weevil or get the Shipping Board out of their troubles and difficulties, or stop malaria or solve the transportation problems. It is only designed to do one particular thing—stabilize the price level. So far as I can see, it will not in the least help the farmers out of the difficulty they get into when they raise too large a crop of one thing or too small a crop of another thing; nor will it help the manufac-

turers when the price of steel goes up too high or down too low. Any of these individual prices will go along just as they have in the past, and there will be just as much difference between prices as at present. Often, as heretofore, the producer will not get enough to pay him for his cost of production, while at other times he will make abnormal profits. Those things will go ahead, whether this system is adopted or not; that is, this bill is intended to cover only one particular purpose, to stabilize the price level. We must remember that there is a very distinct difference between the price level and individual prices.

I believe I will steal one of Professor Fisher's illustrations, if I may, to illustrate just what the difference between these things is:

The price level may well be thought of as the level of a lake. Suppose that the lake is controlled by locks at the entrance and exit. Evidently you can regulate that price level. Suppose you think of the individual prices as being the waves upon the surface of the lake. There are innumerable waves, just as there are innumerable prices; and the wind represents, we will say, different forces that play upon those prices. Each wave represents an individual price. No matter how high the wind, it will not affect the average level of prices in the lake; it will be just the same, whether the wind is high or low. But if you let water out of the lake or run water into the lake, all these waves will be on a higher level than they were before.

That is the difference between the individual prices, and the price level; and this plan is only to stabilize the price level and not to affect any individual prices.

The question arises as to whether this is really a matter of primary importance or only of secondary importance, and I think that Professor Rogers yesterday was not over emphasizing the matter when he said this was certainly one of the most important questions that has come before Congress for a long time.

I have some computations here (made for an article in the American Economic Review) of how much wealth was transferred from the creditors to the debtors, from the owners of money to the nonowners of money during the rise of prices that occurred between 1915 and 1920. That was a period in which a tremendous rise occurred in three or four years. I do not believe that at the present price level there is any way of figuring out that the unjust transfer of wealth from one person to another was less than \$40,000,000,000; a huge amount taken arbitrarily out of the pockets of the people that happened to be unlucky and put into the pockets of the people who happened to be lucky. It would have been neither more nor less fair if it had been transferred by throwing dice, saying, "Now, we will classify all of the people of the country and we will throw dice to see which class wins and which class loses \$40,000,000,000."

We have been hearing a good deal recently about the good or bad effects of transferring money from the Government to certain ship owners in the form of ship subsidies. I believe that the proponents of the ship subsidy bill have said somewhere that it will cost \$50,000,000 a year and the opponents have said that it will cost \$100,000,000 a year. Let us take the higher figure and suppose it costs \$100,000,000 a year. Then it would take 10 years to cost \$1,000,000,000, to transfer \$1,000,000,000 from the pockets of one class of people to another.

But this inflation of prices transferred \$40,000,000,000 in the course of three or four years from the pockets of one class of people to the other. It would, therefore, take 400 years of the ship subsidy to transfer as much money from one class of people to the other, as this price movement, due to currency inflation, did in three or four years. That is, if you had started in about the time Columbus discovered America and had kept the ship subsidy going up to the present time, it would have had about the same effect in transferring wealth.

Mr. DALE. I do not quite understand the periods during which you find the deflation to have taken place.

Mr. KING. The top of prices was reached about May, 1920, if I remember rightly. The bottom of the present price wave was approximately 9 or 10 months ago. It is hard to locate it exactly. During that period the price level dropped approximately one half way back to the 1913 level.

Mr. DALE. Then, as I understand it, this transfer of wealth you speak of took place within that period of three months.

Mr. KING. No; I was speaking about the inflation period. The period from 1915 to 1920, when the prices rose from a level of 100 to 260, or something like that.

Mr. DALE. During a period of about five years?

Mr. KING. Yes. What this bill aims to do is to prevent such enormous transfers of wealth from one class of people to the other without regard to any recompense for any service done.

You have all heard of the intense effects of the war upon our economic life. Perhaps not all of you will agree with me, but it is my firm conviction that the influence of the poor currency system in this country had far greater economic results than did the effects of the war, so far as the United States was concerned; that is, if the war had been financed by noninflation methods, we would not have noted much change, economically speaking, as a result of the war. The economic changes were mostly due to a bad currency system. To illustrate what I mean: Mr. McCauley, who is one of my colleagues at the National Bureau, has been plotting curves, showing the production of pig iron and numerous other important commodities. Should you examine those curves—for example, that representing pig iron—a commodity the production of which you would certainly expect would be greatly affected by the war, you could not tell where the war happened. The pig iron curve goes along throughout the war period in just about the normal way. So it is with the curves representing various other commodities. Powder, and copper, and a few other things that were used extremely intensively in the war show large fluctuations, due to the war influences. Most commodity statistics into which prices do not enter, show very small fluctuations due to the war. But everything into which price enters, everything that is affected by these changing values in money, shows very great fluctuations.

Mr. WINGO. Doctor, I do not know whether I understand you or not. Do you mean to leave the impression with the committee that a relatively small number of basic commodities were affected by the war?

Mr. KING. If you take the production—the amount of output of any one of these commodities—and plot a curve representing it, you will, of course, recognize the growth of the country. The curve will go up; but you will detect little change from that normal course during the war period.

Mr. WINGO. You are talking about production?

Mr. KING. I am talking about production.

Mr. WINGO. And not about prices?

Mr. KING. Not at all. I am talking simply about the tonnage.

It seems to me, as has been intrusted already, that we might enumerate among the civil effects of our present unstable currency system the so-called profiteering and the housing shortage that have upset the country.

Mr. WINGO. Before you get to that, would you mind explaining the whole illustration that I think Doctor Fisher is the author of, the level of prices? Will you explain what you mean by "stabilization of prices?"

Mr. KING. Yes, sir. By the stabilization of prices, I would mean that we would fix the inlet and outlet of the lake, I described a few moments ago, so that there would be no change in the level; that is, the wind would come up and go down and the waves would rise and fall. But if you had a stabilized price level the lake would keep at the same average level all the time. If you owned land that under past conditions sometimes flooded and sometimes did not you would in the future not be troubled by the rise and fall of the lake, except in so far as the wind affected it.

Mr. WINGO. How would you select the level, and who would determine what the level would be?

Mr. KING. The level might be selected in an innumerable number of ways, and I believe that it would affect some people's interests any way that you could determine it. Personally, I think that the present level is about as good as you are likely to get to start out with, because of the fact that we went up to a very high peak, we have come down to a point about half way back to where we started and now we seem to be starting slowly up again. The criterion determining whether the level to start out with is good or bad is this: How many people will be injured by a change? Ricardo once said that any tax system was good in so far as it was old, and I believe that the same is very largely true of the price level. If it has been in existence a long time it is good; if it has changed recently, it is bad.

Mr. WINGO. It is the law of relativity?

Mr. KING. That is exactly the point.

Mr. WINGO. In other words, the main point, you think, is to have it stable; you get a level whether abnormally high or abnormally low. If you maintain it, other things will be adjusted to it?

Mr. KING. Ultimately it will be a good level, whether high or low.

Mr. WINGO. And you agree with other economists that it is foolish to hope or fear that we will return to anything like the old price level that existed before the war?

Mr. KING. I am not a very good prophet, but I do not think that we are likely to return soon to the old price level.

Mr. WINGO. That is the idea I gathered from Mr. Fisher on the prices.

Mr. KING. That would be my feeling.

As Professor Fisher hinted—but I think he did not bring out the point very strongly—speculation is not necessarily undesirable. It may be all right to speculate; I do not object at all to anyone speculating who wishes to do so, and to any extent that he desires. The thing that we desire is to avoid compelling the man to speculate or the woman to speculate who does not wish to speculate, but who wants safety of investment; that is, if a widow wishes to invest her funds so that she will have a certain, definite income on which to live in certain style for the rest of her life, we want to protect that widow so that there will be a place where she can put her funds and they will be safe, and so that she can invest them in the customary form of dollars on terms with which she is familiar. As Professor Fisher pointed out, under present conditions an investing agency may invest the dollars in perfectly good faith, and yet she may lose a large fraction of her wealth because the dollars yield interest which will not purchase as much as was expected at the time of the original investment. This state of affairs is not the fault of the agency that is supervising the investment. It is the fault of our monetary system.

We seek to make speculation voluntary and not involuntary. At present we have a system that compels every person to be a speculator, whether he will or no. We want to make it optional, so that if he wishes to speculate, well and good; he knows what he is doing. In other words, we wish to substitute a fixed dollar for a variable one, and in substituting a fixed dollar for a variable one, we want to do just what our forefathers did when they substituted a fixed yard for the girth of the ruler. It probably was much better to have a girth of the ruler than no yard at all, but it certainly was not a very finished and scientific method. When they adopted a bar of platinum which represented a fixed yard it was a great improvement.

What we want is to fix the dollar in terms of commodities, to substitute modern scientific methods for our present antique haphazard monetary system. The Constitution says it is in the power of Congress to fix the value of the dollar. It has fixed the weight of the dollar, but it has never fixed the value of the dollar. It seems that now is a perfectly logical time to fix the value as well.

The evils of inflation and deflation were pointed out years ago. I was much interested recently in seeing a manuscript which was written by Nassau Senior 75 years ago, and which was recently unearthed by Prof. S. Leon Levy, of this city. In this manuscript Senior described in great detail the same kinds of monetary evils which society has been suffering from in the four or five years since the recent war; in fact, were you to take his manuscript and apply it to 1922 conditions you would find hardly a word that needed to be changed.

Mr. WINGO. Is that manuscript available in the library?

Mr. KING. I think it has not yet been published. Professor Levy wrote me that it would be published soon, but I believe it has not been as yet.

As Professor Fisher pointed out, the plan that is proposed here is merely to make the mint a market for gold, where it is bought and sold, just like wheat is bought and sold on the board of trade at present. Money will then be a stable commodity, but gold will become a commodity that is bought and sold by the miner or the man who buys it from the miner, and it will be marketed just like wheat. The fact that gold will vary in price will not disturb international trade any more than fluctuations in foreign exchange do now.

The effect upon international trade of a different monetary standard in one country than in another has been held up by some people as a great bugaboo. It used to be taught in some of the classes in economics that fluctuating exchange would destroy foreign trade. But while, since 1914, we have had extremely variable standards between different countries, we have found that international trade has gone on—in fact, the largest trade the United States has ever had has been under these variable exchanges. I believe, then, that we can safely declare our independence in monetary standards just as we have declared our independence in other forms of legislation.

Another point which I think needs to be stressed about this particular plan of stabilizing money is that it will not affect the ordinary man on the street at all. He will never know it is going on. The miner who has a producing mine and has gold to sell will know that there has been a change, but unless they read the quotations of gold in the newspapers, people in general will not realize that the currency is being regulated. We have a thousand or two thousand commodities that are quoted in various newspapers around the country and the addition of one more or one less will not affect the public very much.

That is the advantage of this plan. Most plans other than this that have been urged for stabilizing the dollar have had some kind of a proviso which interferes with the citizen's ordinary operations and mental processes. This one avoids all that trouble.

The point was raised this morning as to which index number should be chosen. The question was raised as to whether there would not be a tendency to change the index number from time to time, to throw new commodities into the list or to take out old commodities. It seems to me that an essential feature of this plan is that the list of commodities must be designated at the beginning of a period and not changed during the period, and that the dates of quotations must be exactly described, and that the authority which fixes this list must be precisely instructed as to how the index shall be made up.

Mr. WINGO. Would you mind naming some of the commodities which you would include, if it were left to you to decide?

Mr. KING. If it were left to me to make a list of commodities to be included—despite the fact that I perhaps ought not to differ with so able an authority as Professor Fisher—I would not include in the list the same commodities that he does. I do not think that this is a vital difference; that is, I am perfectly willing to have the type of list adopted that he has suggested. Personally, however, I would prefer to see the index numbers based upon retail prices of goods sold to consumers rather than upon wholesale prices of goods sold in the larger markets. There are, however, it must be admitted, certain disadvantages in the substitution.

Mr. WINGO. Whatever prices you would take, wholesale or retail, what particular commodities—the principal ones—would you include?

Mr. KING. If I were to make a list of commodities, I would say to place in this list things that could be readily identified and standardized, and then to weigh each of these in proportion to the use of that particular class of commodities by the public.

Mr. WINGO. What commodities do you think you would put in that category?

Mr. KING. I would have anthracite coal of a certain grade, bituminous coal of a certain grade, gas of a certain grade, electricity of a certain grade. I would have certain cuts of meat, certain grades of flour, and certain types of preserved foods—say, canned goods that are standard.

Mr. WINGO. Would you have copper?

Mr. KING. Yes; I would have copper, as sold in its finished forms. Copper would not be as important on this list as it might be in some others.

Mr. WINGO. Would you have steel?

Mr. KING. I would have steel in certain finished forms. I would not have the raw steel or the raw copper or the raw materials at all, if I were making up the list.

Mr. WINGO. Would you have wool?

Mr. KING. I would not have the raw wool; I would not have any raw materials, and I would not have any materials in unfinished form. I would have certain grades of woolen cloth and I would have certain grades of cotton cloth, such things as are bought by consumers.

Mr. WINGO. In other words, you would have what would be recognized as finished products, and you would not have any basic raw materials at all?

Mr. KING. Personally, I would not. As I say, I do not think this is a matter of great moment, because the variations in index numbers which I would wish to prevent and which Professor Fisher would wish to prevent are such large changes that it would not make a great deal of difference which index was used. Both would give roughly similar results. Both would eventually get to the same place.

If you look at the chart published in the Survey of Current Business, you will find that, whether you take retail prices or wholesale prices, if you start with them at the same place in 1913 and come to the present time, they are both again at practically the same place.

The reason I rather favor retail prices as the basis for the index is because they do not fluctuate so widely, and I think that the ultimate things that people use are the real determinants of price. I feel that it is important that we stabilize in terms of the commodities that people use rather than in the terms of the commodities that are dealt in at wholesale. Wholesale prices are determined by what people expect to get for the materials in question when converted into retail goods at some future time. There is one principle which I have always tried to emphasize in teaching economics, and which I think it is almost impossible for the person who has not thought about it a good deal to comprehend, and yet which I believe is absolutely fundamental—and I believe nearly all economists will agree with me in this—that prices look to the future and not to the past. The automobile manufacturer, for example, makes automobiles because he thinks he is going to sell automobiles at a certain price in the future. He does not reason that because they cost him so much in the past he must sell them for a given price later. He is always thinking, "What will my market be when these things are done?"

The wholesale price is, then, after all, really a reflection of what people dealing in such things think the finished products made from the present materials are going to sell for at future dates.

Mr. WINGO. You would base your index upon consumptive prices and not on production prices?

Mr. KING. Personally I would. As I say, I do not think the class of commodities used is a matter of prime importance, but that would be my choice.

Mr. WINGO. Consumptive prices are more stable than production prices, are they not?

Mr. KING. Yes; very much less fluctuating. You will find in an ordinary business cycle movement that the wholesale prices will perhaps fluctuate as much again or sometimes twice as much again as the prices of commodities at retail.

Mr. WINGO. I did not express myself clearly. You claim that finished products ready for immediate consumption fluctuate less than the prices of raw materials sold by the producer in the first instance?

Mr. KING. I think that you will find statistics published by the Labor Department's Bureau of Statistics or Dun's Review or Bradstreet's—by any of those publishing standard index numbers—will bear out the contention that wholesale prices fluctuate more than retail prices. But in the end they all return to the same general level.

It is not very material, then, which class of commodities is selected, because they eventually arrive at the same location; and, after all, what we are trying to eliminate by this measure is the tendency of the price level to ramble off to some distant point rather than to charge the mere fact that it fluctuates from time to time; at least, that is what I would expect to remedy by this law. I would hope to keep things so that if you make a contract to pay a man a certain amount of money 20 years from now that you will know that at the end of 20 years it will take just about the same amount of commodities to pay that bill as when the contract was made. That is the aim I have in mind.

Mr. WINGO. In other words, you want the purchasing power, then, to be the equivalent of the purchasing power that he gave up in the first instance?

Mr. KING. That is exactly the idea. I agree with that most heartily.

There is one objection frequently made regarding this bill which you will hear somewhere if you have not heard it many times already. I think the best way to meet that objection is to meet it squarely. Professor Fisher is, as I believe most of you know, an accepted leader of the quantity school which believes in the quantity theory of money. A good many people who are on the other side have said that they do not believe in this standardization scheme for stabilizing the dollar, because they do not believe in the quantity theory of money. They contend that this plan is based upon the quantity theory, and since the quantity theory is false, the plan will not work.

Now, that idea is due to an absolute misunderstanding of the whole question, because this plan does not in any way depend on whether the quantity theory of money is true or false; it will work just as well and perhaps, you might say, even a little better if the quantity theory of money is entirely false, and if, as the opponents of the quantity theory say, the only gauge of money's value is the ratio of the value of gold to the value of other commodities; in other words, if the price of every commodity is due to the relative demand for that commodity as compared to the demand for gold.

This plan proposes to change the amount of gold that is called a dollar. If the antinquity advocates are correct, the response will be instantaneous, for just as soon as you have made the change, prices will automatically change at once and in the same ratio. Professor Fisher has pointed out this fact in regard to the Mexican dollar or Canadian dollar. There will not be any delay whatever if the antinquity theory is correct.

If the quantity theory is correct, the only difference will be that this plan will act through the volume of money put into circulation, and there may be a delay of a few days or a few weeks or a few months. Professor Fisher, I believe, thinks that the delay would probably be, on an average, two months, and that is why he has proposed, as I understand, the period of two months for each adjustment. But the essence of the plan is not changed. There is no reason why the men who are the leading opponents of the quantity theory should not indorse this plan just as heartily as the men who are favoring it most. I think that it is very well to keep this fact clearly in mind.

Professor Fisher has proposed in this bill that for the reason I have just stated, the adjustment in the index number occurs once in two months, for he believes that the time elapsing after the adjustment has been made before it will have effect will be something like two months and that it is unwise to adjust too often.

Professor Rogers raised the objection on the ground that the Treasury might have difficulty from speculation in gold, if the index numbers were not adjusted promptly, for the mint is virtually buying gold at one price and selling it at another. Other people besides the official board can compute index numbers if they know the commodities that are going into the index number. They can evidently find out in advance what index number will be reported before the official board makes its report.

Speculation based upon a known fact that has happened is, of course, different from speculation based upon something that you think may be going to happen. We all know that the fellow who speculates on what is going to happen loses as often as he wins—at least as many people lose as win. So there is no danger to the Treasury from people speculating in gold unless they know what is going to happen. But if they know what is going to happen because they have already computed the index number; if they know that the value of gold is going to change on a certain date, they have a chance to win from the Government. As Professor Fisher says, it is not a very serious matter, but I believe it can readily be taken care of.

I would suggest, although this may not be as good a plan as his, that the committee which computes the index number be instructed to compute said number not once in two months but at least once a week, and that they make changes of 1 per cent (if we pick 1 per cent as ideal) as often as these changes of 1 per cent may occur. With the cooperation of the Federal Reserve Board I do not think that these changes would occur oftener than once in two or three months.

I think that the brassage charge which is provided for in this bill should perhaps be larger than the amount of the change in the weight of the dollar. This would make the plan absolutely safe as regards raids on the Treasury by speculators. I see no special merit in making the change in weight 1 per cent each time and the brassage charge 1 per cent. I see no reason why the brassage charge could not as well be made  $1\frac{1}{2}$  per cent if the maximum change is 1 per cent, and I see no reason why these changes could not just as well be made at more frequent intervals.

Those are all, as I see them, minor details which experience will show the best way to handle, and I feel about adopting this bill a good deal like I would about the course to be followed in a city after there had been a great robbery. To illustrate: This transfer of \$40,000,000,000 was what we might think of as being a robbery of considerable size. Suppose in a city not \$40,000,000,000 had been stolen but only \$40,000,000. The citizens would want something done about it. Suppose they had never had a police force. I should say it would be a very good idea for them to establish a police force, even if they did not immediately decide as to what was going to be the color of the uniform, blue or brown, or as to whether the force was going to wear a particular form of cap. Those details might be discussed later. But it would not be a bad idea when they established this police force to give the proper authorities a little leeway as to just how they were going to conduct the police force. Likewise, I think it is very well in drawing this bill to give some little leeway in these details as to what the brassage charge shall be

and concerning the changes in that brassage charge. To prevent speculation the charge, however, ought always to be larger than any change occurring at any one time in the weight of the dollar.

In regard to the point that was raised by the gentleman this morning concerning the proposed 50 per cent reserve, I must say that I would much prefer to see the bill go through with the requirement for 100 per cent reserve. I thoroughly indorse the view that Professor Fisher suggested last, that this reserve might as well be in two sections, and if in maintaining these reserves the Treasury, in buying and selling gold, loses money on the transactions there is no reason in the world why it should not be allowed to take it out of the 50 per cent. I think that a 50 per cent minimum for the reserve might be desirable, but I believe that the system should be started with 100 per cent reserve. I think that lowering the reserve limit to 50 per cent will lead, first, to extra opposition to the bill, because it will look like an inflation measure; and, second, that if this extra gold is thrown into the general fund of the Treasury there will be a strong temptation to use it for some form of inflation. I say do not unnecessarily throw temptation in people's way. I can not see any advantage whatever in the 50 per cent limit.

I also agree most heartily with Professor Fisher that cooperation on the part of the Federal Reserve Board is desirable. The point was made this morning that the Federal Reserve Board has not yet been given authority to stabilize the price level by the use of credit. Unfortunately, however, they are given by the laws as they at present stand another authority; they are given the authority to fix the interest rate, and they have constantly exercised that authority. Now, fixing the interest rate undoubtedly does control credit, and, as was pointed out this morning, they have controlled credit; but, according to my opinion, they have done it in a very inefficient manner. I am not here to fix the blame. I do not think that the Federal Reserve Board is wholly to blame, but it is not a question of who is to blame but of what was done. We know that they did allow tremendous inflation between 1915 and 1920—perfectly tremendous—and then, in 1920, when the farmers wanted more credit, the Federal Reserve Board could not give them more credit. Why? Because they had already expanded it to the limit. They were bumping along on their 40 per cent limit (which they decided must be maintained), and they could not expand.

The error was in expanding up to the limit so that they could not expand further. If the Federal Reserve Board had been managed sanely, it would never have allowed the inflation in the first place, and then there would have been no trouble about giving assistance at the time it was needed.

What we want to do—

Mr. GOLDSBOROUGH (interposing). Excuse me. Suppose this system had been in operation when we got into the war. How would you suggest that we could have raised the money necessary to carry on the war without practically the very same inflation?

Mr. KING. I think that this question is a little beside this particular point. But, personally, I would favor what I believe most of the economists did—considerably heavier taxation than we had at the start.

Mr. GOLDSBOROUGH. You think the people would have stood it, do you?

Mr. KING. That is a political question which I can not answer. What people will endure is something you can not tell until you try it. More taxation would have been the desirable thing. If the people will not permit it, you can not put it into effect in a democracy.

Mr. GOLDSBOROUGH. That is a practical question.

Mr. KING. It is a very practical question. The men in the Treasury Department felt that the people would not stand more taxation, and, hence, we had the inflation up to the close of the war. But we also had a very large inflation after the war was closed, which did not seem to be anything like as necessary. I have a feeling that without any very great difficulty that could just as well have been prevented.

But there was great pressure upon the Federal Reserve Board from many sources. Business was very prosperous, and people were making a great deal of money by borrowing and rediscounting, and there was nobody to hold them back. So the board did the thing which most people would do under the circumstances—they let it go—met the popular demand. But the day of reckoning had to come, and when the day of reckoning came they did not

have the resources to do what the Federal reserve system was created to do— to give us an elastic currency. An elastic currency is supposed to be one which will expand in case of crisis and emergency, and contract when things are easy. The credit arrangement that we got under the Federal reserve system was elastic in the wrong way; it expanded when times were good and contracted when times were bad. So the way it worked was just the opposite of what it ought to have been.

Congress has authority over the Federal reserve system, and, to my thinking, it must exercise that authority and see that the Federal reserve system is made to give us an elastic currency.

Mr. GOLDSBOROUGH. In what way?

Mr. KING. I would say that the best way would be to do as Professor Fisher suggested this morning; make the issuance of credit, in other words, the interest rate which governs credit, dependent upon the price index; put the proviso into the law that was suggested this morning, or something to that effect; namely, that the Federal Reserve Board shall use its power to fix the interest rates in such a way as to prevent fluctuation in the price index, using this same price index that is to be used for the stabilized dollar, for prices begin to climb at the same time that more credit is demanded.

Mr. GOLDSBOROUGH. Perhaps you could see from the atmosphere this morning the fear of some members of the committee that that power could be used by the Federal Reserve Board in such a way as to produce high rates of interest in certain sections of the country and low rates of interest in other sections of the country. Do you know any way whereby the Federal Reserve Board could be controlled in the exercise of that judgment in different sections of the country? That is what Mr. Wingo evidently had in mind.

Mr. KING. At present, as the law stands, I believe that the Federal reserve banks of each section have the right to fix their interest rates.

Mr. GOLDSBOROUGH. Subject to the control of the Federal Reserve Board.

Mr. KING. Review by the Federal Reserve Board. The law might be so amended as to require the Federal Reserve Board to fix these interest rates at the same level in all sections of the country at all times.

Mr. GOLDSBOROUGH. Do you think that would be feasible and proper?

Mr. KING. Without going into that matter more thorough, I would prefer not to answer the question, Mr. Chairman, because I have not given that particular phase of it thought. I believe that is a little different problem from any that I have tackled.

But at the present time there is no doubt that the Federal reserve banks and the Federal Reserve Board do exercise freely the power to fix interest rates in the different sections and do it without any regard to the price level.

The idea that was brought up by Mr. Wingo this morning, and in which I agree with him most heartily, is that the Federal Reserve Board ought not either to discriminate in credit conditions between different classes of individuals or to say: "We will loan credit for this purpose and we will not loan credit for some other purpose."

Personally I think that such power to discriminate is bad. It is no doubt evident that the individual bank must have power to discriminate as to whether the security offered is good or bad. But under identical conditions I think that the Federal Reserve Board ought to loan to all comers at uniform rates. There should not be this power to discriminate.

Mr. GOLDSBOROUGH. Your view, then, at first blush, without having made the investigation which you say you have not made, is that it would be economically sound to provide by law in the reserve act that the Federal Reserve Board in fixing the rediscount rates should make them uniform all over the country and for all classes of the borrowing public. Do you think that would be sound?

Mr. KING. I am not sure about the advantages or disadvantages of so doing. But I do not see at present any inherent difficulties in adopting this policy. As I say, I am a little doubtful on that point.

Mr. GOLDSBOROUGH. If we could do that, and it was sound to do that, then a bill like this would control the amount of credit at the resource of the Federal reserve district, and its distribution among the districts would be automatically controlled by the reserve act itself?

Mr. KING. I think that it might be quite easy to work out a provision which could be put into the law itself which would regulate automatically the flow of credit from the Federal Reserve Board. With such a law, when the index number of prices changed in either direction a certain amount it would produce

automatically an effect upon the interest rate which would have the effect of limiting credit and thus stabilizing prices. The Federal Reserve Board would then need to exercise options.

I think there is no doubt but that we ought to limit the power of the Federal Reserve Board to use its own discretion rather than to give it new powers. Mr. Wingo is fearful of giving it new powers. The board has already exercised these powers. The fact of whether or not these powers are specified in the law makes no difference, as long as they are exercised every day.

I think we ought to put a limit upon the board so that they would feel it is their duty and obligation to control credit in the way which would make the price level stable rather than simply to exercise the right of giving loans at their discretion to that person or this person. I think such a policy would be received with favor by the Federal Reserve Board, because you know that any body of men would rather be subject to definite rules than to popular pressure. It would certainly be much more pleasant for them.

Mr. MACGREGOR. Then you think that the Federal Reserve Board never heard about this index number proposition?

Mr. KING. I think they have heard about this index figure, but that other things have interested them more, and, under those circumstances, they do what they feel is most necessary at the time. As to whether I would have done the same thing if I had been on the Federal Reserve Board, that would be a different question, of course.

I believe that we ought to do these two things: First, adopt a bill conforming to the general suggestions of this one (with certain modifications which I have suggested, most of the modifications not being very important, but one or two of them I think ought to be put into it); and, second, that we should put some further strings on the Federal Reserve Board so that it would be instructed definitely to regulate the interest rate in such a manner as to make the price level stable. Those are the two features I would like to see put through.

If there are any further questions, I shall be glad to answer them; if not, I will go to the next point.

Mr. MACGREGOR. In general, what has been the discussion among financial men with reference to this proposition?

Mr. KING. I feel that I am not a very good authority as to the discussions among financial men, but I happen to know that some of the men who have given to the matter an unusual amount of thought are quite heartily in accord with me. I can not speak for financial men in general.

Mr. MACGREGOR. How intelligent are financial men in general with reference to finance?

Mr. KING. My impression of the ordinary financial man is this: He knows his own business very well. He is extremely capable. He knows no more about economics or the general principles of money than the ordinary preacher or physician or than any other man whose business is not directly connected with such things. He is in the same class with a merchant or anyone else who is primarily interested in his own line of business.

Mr. MACGREGOR. I had that impression, but I thought I might be mistaken.

Mr. KING. From his point of view there is no especial reason why he should understand monetary principles. He is there to make money, just like the merchant.

Mr. MACGREGOR. Do the communities look up generally to the man in the banking business as a man who has general knowledge with reference to economics, etc., connected with money?

Mr. KING. Undoubtedly they do. It would be very advantageous, indeed, if he did have that knowledge. [Laughter.]

Mr. GOLDSBOROUGH. Mr. MacGregor, as acting chairman, being a member of the committee on the majority side, I want to suggest that you ask whether, under the circumstances, they would rather proceed this afternoon or adjourn until to-morrow morning.

Mr. MACGREGOR. Unless there is objection, we will continue along.

#### STATEMENT OF ROBERT D. KENT, PRESIDENT MERCHANTS' BANK OF PASSAIC, PASSAIC, N. J.

Mr. KENT. I appear before you as a banker of 48 years' experience. For the first 25 years I had no conception of the underlying economic principles involved, but after a quarter of a century doing that business I began to take notice of the high spots in the economic structure.

I want to agree thoroughly with Professor Fisher in reiterating the unreliability of our present standard of values. I believe from my reading and studies of the matter and from my observation and thought that we fell into the habit of taking the dollar as a standard of value because there was no other standard available. We were using it as a medium of exchange, very properly so, and we naturally fell into the habit of using it as a standard of value. But it was never fitted for it properly; it was not adapted to that purpose. But it is the only one we had and we had to continue using it. Therefore we are in a rut, and we have staid in that rut all this time.

I feel in my business, which is dealing in money and in credit, something like the dry-goods merchant would, who was selling to his customers yards of cloth every day measured by the yardstick that was elastic in its nature; I feel that I have been doing that so long and to the detriment of the community in which I deal, and other bankers are doing it in their communities, that as a matter of fair dealing we should have a fixed yardstick for measuring money and credit which we have not now.

Uncle Sam has to buy for his large family of a hundred and odd millions of people a great many yards of cloth. The merchant who would keep on stumbling with the fluctuating yardstick would be treating them unfairly. I think it is the duty of Congress, the law making power of the country, to find a proper yardstick to measure values.

I am confronted with a little problem now. I have in contemplation changing my will. I want to provide for certain beneficiaries later on, some of them young children, and it is a big problem with me to estimate what the purchasing power of a dollar will be in 10 or 15 years from now. I would like to have more light upon the amount to appropriate to obtain for them the things that I desire then to obtain. But it is a loose question. I can not determine what amount of money will accomplish my purpose. I know now what the standard is, what that money would purchase. But I can not estimate what it will be worth in the future.

I want to say that I regard Professor Fisher's plan of stabilizing the dollar as sound theoretically. I would change some of the details; for instance, I would advocate strongly the establishment of the 100 per cent reserve; I would not mix up that matter 50 per cent, nor regard the other as any sort of a profit. It is a trust fund. I would call for that 100 per cent reserve.

I question very much whether 1 per cent brassage is sufficient. I think 2 per cent is small enough; that is, if the period is two months, there might be a change in a period as suggested by the previous speaker or a change in the amount, but if the period is two months I would advocate at least 100 per cent as a change.

A good deal of doubt has been expressed this morning about the matter of control of the 12 member banks on the part of the Federal Reserve Board. No allusion has been made to the practice of the Bank of England. The governors of the Bank of England have, all my lifetime at least, recognized the money conditions, the monetary conditions of the world and the markets of the world in fixing the rate of discount, and I think they have done it in a way that has been wise and commendable, and the United States for a long period of years watched keenly the shifting of that rate, and I think our Federal reserve system should act as intelligently and unselfishly and wisely as they did and produce the same results. This can not in my judgment be done by the Federal Reserve Board in trying to coordinate the activities of 12 organizations. I have not heard that the Bank of England has been severely or generally criticized by the inhabitants of England or any other part of the world, and our Federal reserve system should be governed by men who command the same influence and respect.

Quite a difference is attempted to be noted in the operation of credit and money in transactions. To my notion, credit and money bear the same relation to each other that the hinge on that door [indicating] bears to the door. Credit moves upon the hinge of money, just as the hinge there makes the door move. The principle is the same; the door is the volume, but the swing and the movement is on the hinge. I think they are related to each other in about that way.

Another matter came up very recently in the testimony here regarding one general discount rate for the country at large. I do not think there is any question that a very serious mistake was made when we were given 12 distinct banks; it should have been one bank. This is one country, and one bank should have been in charge of the finances of the banking system. Mr. War-

burg, when he retired from his position in connection with that, emphasized that point and called attention to it, and he spoke from very close intimate knowledge of the situation. And there are a number of points where it comes up aside from the difference in rates. This is one country, and we should have one money market for this country, which should fix the rate for Maine or Texas; and Texas is entitled to as good a rate as Maine and Maine is entitled to as good a rate as Texas or Florida or Oregon. If they are sound out there the maker of paper, the indorser of paper, and the local member bank in good standing should get money at the same rate in any part of the country. I do not think there is any question about that.

Mr. STEVENSON. Would the gentleman permit a question?

Mr. KENT. Yes.

Mr. STEVENSON. Is there a law preventing the Federal Reserve Board from doing that as it is?

Mr. KENT. There is nothing to prevent it.

Mr. STEVENSON. The idea was that the central power, instead of being in the bank where the capital was located, should be here in Washington, subject to and affected by all the conditions existing in all different parts of the country; and if they deemed your view to be correct, then they would make a uniform rate throughout the United States, and I agree with you that they have not done that to the extent that they should have done.

Mr. KENT. That is only one of a number of items where the weakness of having a dozen banks is shown. I am not prepared to recite those now, but I have them in my knowledge, but not immediately available to me mentally.

Some months ago I prepared a statement on the second function of money, and I will present a portion of that, with your permission.

Already a medium of exchange, money should be as well a standard of value. A proposal to eliminate subjective fluctuations in the value of money and to stabilize its purchasing power against noneconomic influences: In view of the extraordinary care exercised by the United States Bureau of Standards in maintaining the invariability of the pound and yard it seems incredible that our standard of value, which is certainly no less important, should be left to shift for itself.

To indicate how carefully a fundamental weight unit is preserved the following extract from a circular issued by the Bureau of Standards, Department of Commerce, is quoted:

"The fundamental standard of mass adopted by the United States is the international prototype kilogram. This is a cylinder of platinum-iridium kept at the International Bureau of Weights and Measures near Paris in the custody of an international committee. Authentic copies of this standard have been made under the supervision of the international committee and distributed among the countries that support this international organization. Of those authentic copies the United States has two, Nos. 4 and 20. They are kept in a specially constructed vault in the National Bureau of Standards, and are used only when needed to verify the secondary standards of the bureau."

The standard length is held almost equally sacred.

Our standard of value is the gold dollar of 25.8 grains, 0.9 pure. Now, the only reason why gold dollars have a value in excess of the intrinsic value due to the usefulness of the metal which they contain is this: They are a legalized and universally recognized medium of exchange. We value them not for themselves but for the purchasing power which possession of them confers upon us. What we really wish to acquire is food, clothing, shelter, transportation, rights to real estate, and professional services.

There is always a fluctuation in the amount of any one of these things which may be purchased with a given quantity of gold. It is necessary and right that there should be a fluctuation. Nevertheless, the gold dollar is our standard of value, and it is vital to economic life that such fluctuation should be the result of legitimate causes only. That is to say, just as it is right that the price of cloth should vary in relation to supply, demand, quality, and width, so should the purchasing power of the dollar vary in relation to scarcity or plenty of things purchased, or its quality or width. Furthermore, things purchased by measure of variable pounds, yards, or hours would become elements of chaos, and similarly transactions involving the purchase of invariable commodities, rights, or services by the tender of dollars which vary according to intrinsic fluctuations—not relative fluctuations—are unsound, dangerous, and wasteful.

It is a fact that gold dollars have intrinsic fluctuations which are not affected by fluctuations of things for which they are exchanged. These fluctuations are caused by the rate of production of gold, by the absorption of gold into the arts, and by other variables. Their effects upon the reliability of gold as a standard is so great as almost to invalidate it. It is certain that a more stable standard should be adopted if one could be found.

It must be admitted that nothing would be gained if people were certain that a gold dollar would purchase 2 pounds of beeksteak now or 10 years hence. Nobody wants such a condition. Everybody, however, would benefit by being sure that a thousand dollars would purchase an approximately equivalent aggregate of steak, iron, coal, bread, clothing, and transportation now or three years hence. The degree of stability which we do feel to be necessary is this: That an estate yielding an income of a fixed number of dollars annually shall support a person or a family of fixed needs through half a generation without becoming pitifully inadequate or ludicrously superadequate.

So little care has been taken to maintain the stability of our standard of value that an utter failure to realize that condition must be acknowledged. Here is an instructive study of the value of a \$100 4 per cent Union Pacific bond in terms of things which it would buy in May, 1914, and May, 1920:

(The table referred to follows:)

	May, 1914.	May, 1920.
Unskilled day labor.....days..	55.4	15.4
Sugar, refined granulated.....pounds..	2,395	350
Cotton.....do.....	746	188
Steel rails.....tons..	3.46	1.40
Steel sheets.....pounds..	5,243	1,400
Pig iron.....tons..	6.58	1.64
Copper.....pounds..	685	405
Wool, 100 grades, average.....do.....	408	114
Wheat.....bushels..	884	24
Corn.....do.....	121	344
Live beef.....pounds..	1,311	664
Leather, hemlock, sole.....do.....	323	143
Oil, refined petroleum.....gallons..	746	296
Coal, nut anthracite.....tons..	154	5.6
Newsprint.....pounds..	4,311	700
Brick, common.....thousands..	13.85	3.08
Yellow pine.....feet..	3,233	700

Notice that no question is raised as to the payment of the amount of the bond when it becomes due or as to the payment of the interest every six months. The bond itself is standard. The fluctuations in its exchangeability are due largely to the value of the dollar.

One great drawback to the use of gold as our measure of value is that on the approach of a political crisis affecting international relations, or on the approach of a war of any magnitude, there is an instinctive realization that gold will greatly change in its purchasing power. In consequence there is a wild scramble on the part of many astute business men who want to protect themselves from loss by violent changes in prices or to put it in another form, from changes in the purchasing power of the gold dollar. In addition to this class of people, many other men of financial acumen see in such a political crisis or in the approach of a war an opportunity to make large profits by speculating in the fluctuations of the purchasing power of the dollar. Their action is equivalent to their buying cotton cloth when the yardstick is 36 inches long with the expectation of selling it when the yardstick has shrunk to 30 or 24 inches. We know, of course, that the yardstick does not shrink, but the change in the standard of value produces exactly the same result as if it d'd. In the aggregate these two classes of operations, I am convinced, adds greatly to the instability of the dollar. Under the plan which I will mention later this situation would be avoided.

With the idea of stabilizing the value of the gold dollar against intrinsic fluctuations due to the supply of and demand for gold, which in addition to being the material of which dollars are made is a true commodity with a separate existence as such in industry and society, a plan has been constructed by Prof. Irving Fisher. He would periodically change the quantity of gold in the dollar to make it conform to the value of commodities in general as shown by the "index number."

We are indebted to the author of this plan for a sound idea. Most students of the subject agree that it would, in so far as moderate or ordinary fluctuations are concerned, accomplish the desired end, but there is some doubt as to its efficacy in restraining wide fluctuations. It should be remembered, however, that the restraint of moderate fluctuations tends to eliminate violent fluctuations. After all they are fluctuations and not mutations—even after a sudden catastrophe values swing instead of leap. If there is a restraint of the swing, the leap may not follow. Professor Fisher's proposals should receive the most serious consideration of qualified, true experts under Government auspices.

Charles H. Ingersoll, of dollar-watch fame, once said: "Labor wants more real wages. Real wages are only such as will supply more of the things the laborer wants. Dollar wages mean nothing when the dollar depreciates as fast as wages increase." With equal truth this dictum may be extended to include all persons who seek and receive income.

Mr. STEVENSON. I notice what you say of the standard of measure—for instance, the yardstick—that it is a misfortune that the standard of measure of value is not fixed. Take a crop of cotton. I have seen 16,000,000 bales made and a very low price realized; and it seems to me that applying the same principle that is attempted to be applied in this bill would instead of fixing any more than that would unfix even the standard of measure. For example, here is 16,000,000 bales of cotton. That will entitle every man to a share a little bigger; he would be entitled to a yardstick a little longer, because there is more of it; and when that drops down to 7,000,000 bales, as it did last year, you would have to shorten the yardstick. And that is all the theory that this bill is going on, in so far as money is concerned.

I do not understand this. When there is a great production of any great particular crop, there is always, of course, a recession of price, unless there is an unusual demand. Take the case of a constant demand, and you have an overproduction. Then you have the price of that article going down.

I apprehend that the proposition here is to take the average fluctuations of all of the very large number of articles that you can conceive that there may be an overproduction of all of them at some particular time, or a recession of the demand.

What I am getting at is this: Suppose there is a man who produces something in which there is not an overproduction but an underproduction, and there is excessive demand. Under this method of stabilizing of values, would he get any benefit from the fact that there was an under production and increased demand, or would he not have to stand pat along with all the other 104,000,000 people?

Mr. KENT. This bill, if put into operation, would not interfere with the law of supply and demand—that is, an economic and fundamental operation.

Mr. STEVENSON. Is there anything to interfere with the rise and fall of prices?

Mr. KENT. To a certain extent, but not as greatly as increased or decreased supply or demand would. However, other things than that affect it now. But we want to restrict the fluctuations to those natural laws which must be respected and would operate.

Mr. STEVENSON. But if you take the general rise, the general effect of the law of supply and demand on all these articles, and that particular article in which there is a tremendous demand and a deficiency in supply, the man who produces that article would not get the proper benefit, would he, of his opportunity?

Mr. KENT. Yes; the price of that would fluctuate. We do not tie any individual price to a certain number of dollars. We take maybe 50 or 100 standard articles and average them to make a standard value. Then we apply that standard, that new dollar, to operate with the law of supply and demand on any specific article.

Mr. STEVENSON. Let me see if I get it. Here is a time in which it takes a 25-grain dollar to buy a pound of cotton, and it goes along and there is a large crop produced, and other large crops are produced; and the general level is brought down, and a pound of cotton will be purchasable with a 20-grain dollar. How is that going to affect the stability of things?

Mr. KENT. It will not interfere with the action of the law of supply and demand; it can not and must not and should not interfere with that. But there are other things that have been operating, and we want to get at those other things.

Mr. STEVENSON. Now, just what are the other things that will operate, if there are any of them?

Mr. KENT. The amount of gold that is used in the arts and the cost of mining it. Under this law they would not give the chance to speculate that there is now. I think the instability of the dollar is an inducement to bright-minded men to speculate in those very two things.

Mr. STEVENSON. As I understand, you are a practical banker?

Mr. KENT. I am a practical banker; I am not an economist, except that I am mildly amateurish.

Mr. STEVENSON. You are not what we call an expert because you know how to run a bank?

Mr. KENT. I know a little bit of banking principles.

Mr. MACGREGOR. He knows a little more than the ordinary banker, according to the gentleman's statement.

Mr. STEVENSON. To get down to a very practical banking question: A gentleman comes into your office and wants a letter of credit on London for \$1,000. That means \$1,000 of gold, 23.22?

Mr. KENT. Yes.

Mr. STEVENSON. You give it to him and he goes to London and he can get it?

Mr. KENT. Yes.

Mr. STEVENSON. But suppose you give it to him with this new arrangement, and there has been a situation develop which makes the index number run down to 22 grains in gold, and he gets that. He has his \$1,000 gold letter or order for gold in London of 23.22. That is what London has been used to, agreeing that it shall be so; and he gets his 23.22, and it turns out when they call for their gold in the course of the transaction the gold dollar only produces 22 down here. Then what is going to happen; what effect is it going to have on that?

Mr. KENT. The international banking house on whom that bill of exchange is drawn shows what kind of a dollar it is, and they have right up on their desk what the cost is of that, and they know just what to give him right away. There is no question about that.

Mr. STEVENSON. In other words, this doctrine that we heard when I was quite a young man, that the reason for having gold as a standard was that it had the same value all over the world, is going to be shifted?

Mr. KENT. It is shifted now—we want it less shifted than it is now.

Mr. STEVENSON. The English pound has been below par. But if you have some foreign exchange when the amount of gold in your foreign exchange is shifting, what has become of the old doctrine that a dollar is a dollar, that gold is gold—and that a dollar is a dollar all over the world?

Mr. KENT. The relative price of a dollar and pound sterling may shift every day in the London market. You are talking about the difficulty in shifting every two months. I think it has decreased very much.

Mr. STEVENSON. Wait a minute. That applies to the pound sterling, but the sovereign contains a current amount of gold, does it not?

Mr. KENT. But they have tables right before them giving to a fraction of a cent the relative valuations, and they have only to look at that table to solve their problem.

Mr. STEVENSON. But they do not vary the amount of gold in that sovereign to-day, do they?

Mr. KENT. No. But the rate of exchange is all that concerns the customer who has that bill of exchange.

Mr. STEVENSON. When there is a deal between the citizen and the man over there who takes his exchange, he has \$1,000, that is 23.220 grains, is it not, of gold?

Mr. KENT. Yes.

Mr. STEVENSON. He gets that in sovereigns that have a gold value of \$4.866—they have gold to that amount in every sovereign, do they not?

Mr. KENT. Yes.

Mr. STEVENSON. It is fixed absolutely? The dollar with us has so many grains of gold, and the sovereign with them has so many grains of gold, and that is fixed, and it is very easy then in every transaction.

But suppose when the dollar starts out at 23,220 grains and goes down to 22,000 grains by the time the man presents his bill over there, is he not going to lose that difference?

Mr. KENT. The banker will have a table right on his desk by which he knows how many to give that man.

Mr. STEVENSON. It would not take a long time to do so; but would he not lose the difference between 22,000 and 23,200?

Mr. KENT. He would not lose anything; he would get all he is entitled to. He bought from me a certain order for a certain amount, and he would get that over there. Nobody would lose or make on that transaction, except the rate of exchange. He would get what rates he is entitled to on the date of that instrument.

Mr. STEVENSON. But the day he bought it from you, when everything was running exactly as it is now—par—he got an order for 23,220 grains of gold.

Mr. KENT. He would not get an order for that; he would get that gold.

Mr. STEVENSON. He would get an order for what that was the day he bought it, if he got it in dollars.

Mr. KENT. It depends specifically on what terms it was payable in. The draft ought to cover what it is payable in, what kind of money, if it is in our new money of gold or coin issued under the law of so and so, 1923. If the holder of the bill of exchange received less weight in gold than he paid for it in New York, that less weight would buy as much merchandise as would his original payment for the bill.

Mr. STEVENSON. I just wanted to get your idea.

Mr. KENT. I do not think there would ever be any trouble there practically at all.

Mr. MACGREGOR. What was the difference in this index figure between 1913 and the present time?

Mr. KENT. I do not happen to know that.

Mr. MACGREGOR. It is considerable, is it not?

Professor FISHER. Oh, yes; the index is now 155 compared with 100 in 1913.

Mr. MACGREGOR. So this would not fix your proposition of providing in your will for the future, would it?

Mr. KENT. I would like to have an idea what the dollar is going to be worth 20 years from now very much.

Mr. MACGREGOR. Well, is it not worth less than 50 per cent now than it was in 1913?

Mr. KENT. Yes; a great deal less.

Mr. MACGREGOR. How are you going to determine it by this, if you had the dollar issued now?

Mr. KENT. This dollar is fixed upon the average price of merchandise, food, clothing, and shelter; and that is what I want my heirs to have; I do not care how many dollars they have. What I want to know is how much they are going to have in clothing, shelter, and food, and this new dollar fixes that.

Mr. MACGREGOR. How would it be if you would put those dollars of 1913 in a chest?

Mr. KENT. I do not know what they are going to buy then; I have no idea.

Mr. MACGREGOR. Then you come along to 1921. They would buy half as much as they did in 1913?

Mr. KENT. Yes. That is what I am complaining of. I do not know what it is going to fluctuate in the next 20 years.

Mr. MACGREGOR. So the only way you could keep that would be by keeping those dollars in circulation, would it not?

Mr. KENT. Yes; but it is invested and in use. I want to know what they can get out of my investments 20 years from now to supply the necessities of life. It is a practical problem. Mr. Goldsborough said that he had the same question practically. A man wanted to talk about a salary for him 10 years hence; and he did not, because he did not know what that salary was going to be worth at that time. It is a practical question we all meet. You probably all have life insurance that may be availed of in 10 or 15 or 20 years from now. It is a matter of concern to you what that will supply to your families—a matter of vital concern. I think it is so all over the country, and I think it is the duty of the Congress of the United States to try to give us a correct monetary yardstick.

Mr. MACGREGOR. But suppose we issued certificates of the United States Government in 1913 on the basis of the index figure then?

Mr. KENT. We are not going to.

Mr. MACGREGOR. And you hold them along until 1921 and present them. Is not the Government giving you more money?

Mr. KENT. I am not going to issue on that basis. They are based every 60 days that may transpire, as I understand it. We are not going to go back to the value of 1913. We start now with the unit of 100. But can we fluctuate up and down right straight ahead to correspond with the cost of com-

modities that we all want to use and our heirs want to use? That is the idea, is it not, Professor Fisher?

Professor FISHER. Yes.

Mr. MACGREGOR. But suppose I bought a piece of property in 1913, and along in 1921 I sold it. Am I getting the same, or less, or more?

Mr. KENT. You would get a higher price, probably. But the purchasing power would be less—a great number of dollars, perhaps.

Professor FISHER. May I ask if he meant assuming that this had been in force in 1913?

Mr. KENT. Yes.

Mr. MACGREGOR. Yes; assuming that.

Mr. KENT. Property probably would be worth more—

Mr. MACGREGOR (interposing). I am assuming you sold at the same price.

Mr. KENT. I have not thought that out clearly. It is a new problem. Professor, can you answer that?

Professor FISHER. I may not understand it; but, as I understand the question, assuming this plan had been in force in 1913 and we had adopted 1913 as the par 100 per cent, then to-day the price level would be that same number—100. That is the object of the bill, to make the price level stop having these fluctuations.

Mr. MACGREGOR. Would not they change the price?

Mr. KENT. They would change the price. This is not an effort to compensate for a loss due to change in price; it is an effort to compensate for a loss due to change of the price itself. If the price level remains constant, then when you sell your property for the same number of dollars you would receive the same purchasing power.

Mr. MACGREGOR. That is, your index number would not change, except infinitesimally?

Mr. KENT. Yes.

Mr. MACGREGOR. But supposing under Brother Stevenson's statement that your production would double?

Mr. KENT. If the production of any one individual commodity did that, its price would fall approximately 50 per cent.

Mr. MACGREGOR. If the whole field doubled, then you would be in trouble?

Mr. KENT. If the whole field doubled, you are making an assumption that is not very likely—and, as has been said by Mr. King and has been proven in many investigations, when you have a large number of commodities, such as combined in index numbers, the volume of production of the mass changes very little from year to year. There is a general increase. The population also increases, and there is a small net increase per capita. But there are none of these great fluctuations such as we now experience. The fluctuations that we now experience are largely monetary and of credit nature in their origin and not of commodity nature.

Theoretically, it might be commodities, but practically it is not. We never do have those sudden concurrences of plethora of iron and steel and all those things; and so far as we do have them it is a secondary kind of inflation and deflation. And so to the extent that we do have it, it would be lessened if we had stabilization. If we stabilize money it would stabilize production. Production even under unstable money is comparatively stable. Production does not cover those fluctuations of prices.

Mr. MACGREGOR. You spoke yesterday about the German situation. What would have been the result in Germany, for instance, or Austria—one of those countries—if this system had been in effect?

Mr. KENT. It would have broken down, because they have their own system, because they could not have stood the taxes necessary—I mean they would not have stood them; I would not say they could not have stood them. As a matter of fact they stand the taxes now indirectly, because the inflation did happen. It indirectly happens; but the very fact that it is indirect makes people stand it. There would be a riot if people in Berlin knew they were standing 50 per cent income tax.

Mr. GOLDSBOROUGH. Which the government does not get.

Mr. KENT. Yes, the government gets it, but it spends it before it gets it; it spends it in inflation. That is the way it gets the benefit of it.

Mr. MACGREGOR. The committee will now hear Mr. Wells.

## STATEMENT OF MR. PHILIP P. WELLS, MIDDLETOWN, CONN.

Mr. MACGREGOR. State your full name for the record, and your business or profession.

Mr. WELLS. My name is Philip P. Wells; residence, Middletown, Conn.; lawyer. Gentlemen, I shall take very little of your time. When this plan of Doctor Fisher's was first brought forward he sent me a copy of his initial publication on the subject. We had been fellow students in economics in our college days. It then impressed me and still impresses me as the most constructive proposal along the line of fiscal reform that has been made within my knowledge.

I will interrupt to say that I have been in the Federal service and have had a good deal to do with legislation before congressional committees, and approached the question somewhat from that point of view.

Ordinarily when a new proposal comes before Congress, it is subjected to the criticism that something unconstitutional is being attempted. In this case this bill is, so far as I know, the first attempt to exercise the express grant of power in the Constitution to regulate the value of money.

When I was a student in economics, I remember a distinguished professor commenting on that clause in the Constitution and intimating that it was nonsense, because you could not regulate the value of money; that money was the thing by which all other values were regulated.

But here the proposal is to regulate the value of money.

Mr. MACGREGOR. Was that in Yale?

Mr. WELLS. Yes. This is essentially a proposal to change the definition of a dollar. It is now defined by one of the sections of the Revised Statutes as 25.8 grains of standard gold—that is, gold nine-tenths fine.

The essence of this proposal is to define a dollar somewhat as follows: That a dollar at any time shall be that quantity of standard gold which at that time has a purchasing power equal to the purchasing power which 25.8 grains of gold now has, assuming we take the present level as the basis.

It seems to me, in answer to some suggestions that have been made by members of the committee this afternoon, it would be entirely possible for any two men to make a contract of that kind. I could contract with any gentleman in this room that at the end of 10 years I would pay him as much gold as would purchase what \$1 would now purchase; and this bill is the proposal to have the amount of gold in the dollar vary in that way.

The thing that particularly attracted my attention to this bill and interest in it was this—and I do not know whether it has been brought out in the hearings here or not, for I have not been present all through the hearings: You gentlemen in Congress are constantly having brought before you proposals for legislation which aim at establishing a better condition of economic justice. For one reason or another, one class or another feels that it is not justly treated in economic affairs and one change or another is proposed to you; for instance, the whole question of railroad wages, railroad rates, and a thousand other things that engage your attention, where the evil that you are asked to remedy is one of social and economic injustice greater or less.

With a fluctuating standard of value, such as we now have, it is practically impossible for the ordinary man, for anyone of us who is not a special expert on the subject, to know whether or not there is any injustice and what the measure of it is.

Some years ago you passed the pure food law, whereby misrepresentations in quality and quantity of food products in interstate commerce were prohibited. I believe you have before you now a pure fabric bill, whereby such misrepresentations in textiles would be prohibited.

I was first interested in this matter as what you might call a "pure dollar bill," to prevent those fluctuations in the purchasing power of money which cause and—more particularly for my present purpose—conceal great wrongs and injustices and hardships.

I want to make another point especially clear: It has been mentioned by others, but I do not know whether all members of the committee have appreciated the way the advocates of the bill think about it. This is no proposal to regulate the price of any single commodity. We all recognize that an increase in the quantity, the supply of a single commodity will, other things being equal, depress the price of that commodity and there will be fluctuations from time to time in the quantities produced of the several commodities, such as cotton,

that has been mentioned this afternoon; and naturally if other things remain equal and the crop of cotton is very large the price of cotton will be depressed. This is not aimed at the price of any particular article, but it is aimed at the general price level of the average of all prices.

Mr. MACGREGOR. Will you permit a question right there?

Then, if there is no overproduction of cotton and a decrease in the demand, if you had contracted, as suggested awhile ago, to pay a man 10 years from now enough gold to buy a certain number of pounds of cotton and you strike the time when by this overproduction the price level of cotton had descended away down below what it was when you made the contract, then you would pay that contract with about a 50-cent dollar, in comparison with what it was when you gave it?

Mr. WELLS. I made no such suggestion.

Mr. MACGREGOR. I understood you to make the suggestion that there was no reason why we should not contract to pay a man what would buy a certain amount of anything at a certain time in the future.

Mr. WELLS. Not anything—everything.

Mr. MACGREGOR. A certain amount of everything?

Mr. WELLS. Yes, sir. The proposal is to contract to pay an amount of gold that will 10 years from now purchase as much of substantially all commodities as 25.8 grains of gold will purchase now; that is the proposition, not "anything" but "everything."

Of course, it is proposed that they have a large number—the bill suggests about 100—of the very important commodities which will fairly represent "everything," although, of course, there will not be "everything" on the list, because there will be a large number of small and unimportant commodities that will be omitted from the calculation.

Life insurance has been mentioned here. When I was a young man just beginning life, in 1893, I took out a straight life \$5,000 insurance policy, which I have kept up to this time. I took it for the purpose of protecting my family in case of my death. I am unable to say what the relative purchasing power of that \$5,000 would be now, compared with what it was in 1893. Perhaps Professor Fisher can tell us.

Professor FISHER. About four-tenths.

Mr. WELLS. So that, having taken out that policy for the purpose of enabling my family to buy what \$5,000 would then buy, if I should die to-day my family would get the privilege of purchasing what \$2,000 would have bought in 1893.

That is one of the kinds of evil that this bill is aimed to correct.

I will give you another example of my own experience: When I was living in Washington a few years ago we owned a house which was bought in 1911 for \$9,500, and about 1921 it was sold for \$12,000, which looked like a handsome profit of \$2,500. We fared better than that. That house had on it a mortgage of \$5,500, which, with various renewals, remained on it when it was sold. The consequence was that our net investment in the house was \$4,000, and on that there is an apparent gain of \$2,500. As a matter of fact, with the \$6,500 when we sold I could not buy as much as I could buy with the \$4,000 when we first bought. There is a case showing the bad effects of the fluctuation of the dollar and the way it conceals the truth.

Now, take the case of the mortgagee: The mortgagee could still get only \$5,500. I do not know who held the mortgage. It was in one of the banks here in town, and the interest was collected by the bank, but the note was held by some private investor. But the investor who still holds that mortgage is in a very bad way compared with what he was in the year 1911. He has taken, as every one of us who holds a bond or anything of that sort has taken, a very great loss in purchasing power, and the very purpose of investments supposed to be safe is to insure the investor, often dependent women and children, of a certain purchasing power. Now, our present dollar absolutely fails to secure that, and this proposal that we have here would measurably at least secure it.

I think that is about all I have to offer to the committee, unless somebody wishes to question me.

Mr. STEVENSON. Speaking of the life-insurance feature of it, I started out considerably sooner than you did. You do not think so, but I remember very well in the campaign of 1896 one of the stout arguments against the propaganda of silver was that it was going to make the widows and orphans

who had life insurance coming to them take cheaper currency; they were not going to get the amount of their policy.

Now, you gentlemen come here and tell us that the gold standard which was established as a result of that campaign has worked the same thing and cut it down 60 per cent.

Professor FISHER. Precisely. I want to ask you this question: Let us leave out all war periods—have you assembled the statistics between 1900 and 1910, say, that decade—to see what the result had been in that period? That was not disturbed by any war.

Mr. WOLFF. The price levels went up just 50 per cent.

Mr. STEVENSON. In other words, the dollar depreciated 50 per cent?

Mr. WOLFF. No; the dollar went down one-third.

Mr. STEVENSON. It would take \$1.50 to buy what a dollar bought in 1900?

Mr. WOLFF. In 1901.

Mr. STEVENSON. I am curious to know what that was. Of course the last decade has been demoralized so far as any reliable deductions can be made by the fact that we are in all sorts of war and mixups.

Mr. WELLS. I think I got in at the bottom in 1893 on that life insurance about the time it quit going one way and started going the other.

Mr. STEVENSON. I began business life in 1887, and it has been running against me all the time in one way or another. I just manage to make a living. When you are talking about what you are going to leave your heirs, I am worrying about what it will buy.

Mr. GOLDSBOROUGH. Is there anyone else here this afternoon who would rather be heard now?

Mrs. RANSOME. I would very much like to have the committee hear me, if it is their pleasure.

**STATEMENT OF MRS. FREDERICK LESLIE RANSOME, LEGISLATIVE CHAIRMAN AMERICAN ASSOCIATION OF UNIVERSITY WOMEN, WASHINGTON BRANCH, 1445 BELMONT STREET, WASHINGTON, D. C.**

Mrs. RANSOME. Mr. Chairman and gentlemen, after talking at length with Mr. Goldsborough about his bill, I wish to state that whatever confidence I have in addressing you may be derived from the hope that I may be of service in advocating the bill. I have come here to urge as forcibly as I can the passage of this bill. I do this with the conviction that it will work toward the ultimate relief of humanity and the greatest good to the greatest number of people in this country.

Professor Fisher has told you how the bill can do away with great social injustices and evils that come from the fluctuations of the dollar and changes in price levels. What I want to do is to lay stress on some of the social injustices he has pointed out.

I am convinced that the plan is sound and that the working of the dollar as a unit of value can be improved in this way. Some years ago in the Outlook there appeared a poem by a Japanese, in which the author referred to women as "Social glue." It seemed amusing to me then, but, in all seriousness, it is true that women work in their tendency much as "glue" operates in smoothing out difficulties and mending breaks of society, so that life may go on favorably as before. You might bring to your minds a parallel, in the breaks in society caused by the chaos in monetary standards, and the attempts of women at present to mend that chaos. This special instinct, which Havelock Ellis says is very pronounced in women and which I have as deeply rooted in me as in most women, or more so, has guided me, as I believe it will guide many other women, to the close study and examination of such facts as have been presented at this hearing.

After five years of study of these facts, I have come to the conclusion that I have no quarrel with the dollar as a medium of exchange, but merely as an unregulated unit of value. As a practical person by training, disposed to think of the ways to improve conditions and circumstances in which I find I am forced to live, I have come to believe that the "goods dollar" as proposed by economists now, is the best solution of the difficulty faced by the majority of the people of this Nation, nay, of the world, i. e., the people whose earnings are in the form of wages or fixed income.

I have been asked to speak briefly of the viewpoint of women on this question, and I must affirm that this viewpoint must of necessity be a practical

one, as we are 90 per cent of those who do the purchasing with the unstable dollar, and are the first to feel the changes in price levels and fluctuations in its purchasing power.

I could speak of the viewpoint of the women in the past, present, and future, and of the different types of women. I can say that in the past, except for the Hetty Greens and those who are submerged economically, that women have had only the viewpoint of how most convincingly to present to their husbands the needs of the family in order to get money enough to pay their bills.

The present-time women are groping blindly for some way out of their difficulty to provide for their homes. Thrift is but hollow mockery. As chairman of the District Federation of Women's Clubs, the home economics department, it is my duty to advance ideas of thrift to women in the District of Columbia in conjunction with the subchairman. We both are in agreement that before we can do that effectively we must warn our audiences of the instability of the dollar, and that to get any feeling of security as to the future value of payments of insurance, for instance, in purchasing power we must set to work to stabilize the dollar, and that we have begun to do.

It is not uncommon for many women—or, at least, I know of cases of women—who consider it a safer investment now to borrow from their life insurance that has been taken out by their husbands in their favor to educate their children, because the money does not reach. They find that the cost of their education at a university 25 years ago was one-third of what it is now for their children. That is actually the case.

It is very apparent to them from such experiences what is shown in this little figure in the monograph. [Exhibiting the monograph to the committee.] You notice there the column 1896 is three times what it is now—the picture of the dollar.

I could speak of what I prophesy will take place in respect to women in the future. It is only a matter of a few years when women will see clearly in masses in women's organizations—and of women's organizations there is no end—what many individuals in them see clearly now. Their case is very clearly given in the account of the servant girl and of salaried classes Professor Fisher presented yesterday, which is printed in the excerpt from his book on *Stabilizing the Dollar*. I would like to read that paragraph again and call it to your minds. It is on page 359. Here are a few copies.

Mr. STEVENSON. I have one in my office.

Mrs. RANSOME. Have you one, Mr. Goldsborough?

Mr. GOLDSBOROUGH. I think so.

Mrs. RANSOME. I might say that before I knew Professor Fisher this little book came into my hands. I read it again and again. I was so impressed with it that I have been reading it ever since; and, not only that, but I have placed it in the hands of teachers of high-school pupils in this city; and I told the principal about it, and he said: "The children can not understand that book." "Oh," I said, "I think they can. I have children of my own in the high schools and they are reading it with interest." My children came to me and they said: "We have told our teachers about the little book on the dollar, and they want to know if you have any copies." I immediately sent for all the copies I could get. So one of the English teachers used that book in the classroom as a model of presentation of argument. The teacher of economics began to send her pupils to the Public Library to read the big book, because this pamphlet was not enough.

So that is what has happened in one of the high schools in this city.

I will simply ask this to be quoted: "Consider a working girl who put \$100 in the savings bank in 1896. To-day, if she has allowed it to accumulate at 3 per cent interest, she has \$200. But when she tries to spend her \$200, she finds things cost about double what they did in 1896. Thus, she gets for her entire \$200 to-day only as much as she could have bought for her original \$100 at the beginning. After a score of years of self-denial, where is her reward, her interest? She has been—without the intention of anybody—cheated out of all her interest through the depreciation of the 'dollars' in terms of which her savings-bank account has been kept. Her interest accrued only fast enough to offset the depreciation in her principal. Like Alice through the looking-glass she has had to run as fast as she could in order to stand still. The bondholder is in the same plight. If he has been 'living on his interest' the purchasing power of his principal has been decreasing, so that really, although without knowing it, he has been living on capital. To

keep his capital unimpaired he would have had to reinvest all his interest." \* \* \*

"Suffering of salaried classes is the cause of unrest. The salaried man, and, to some extent the wage earners, suffer—that is, the cost is borne by those with relatively 'fixed' incomes. With millions of people to be affected and hundreds of billions of dollars stipulated in contracts or otherwise understood, it becomes a matter of grave concern to the whole world what the dollar in these contracts and understandings is to be.

"When prices rise great profits are made, because as we have seen, the 'profiteer' or stockholder wins without effort from the bondholder and from the salaried and wage employees. His easy profits lead him to 'extend himself' until, when interest charges, rents, salaries, and wages catch up, his prosperity ceases, he gets caught in debt and becomes a bankrupt, and a general crisis or even panic may ensue. Every rise in the cost of living brings new recruits to the malcontents who feel victimized by society and have come to hate society. They cite, in their indictment, the high price of necessities and the high profits of certain great corporations, both of which they attribute, not to the aberrations of our monetary yardstick but to deliberate plundering by 'profiteers' or social system of 'exploitation.' They grow continually more suspicious and nurse an imaginary grudge against the world."

That is all very clear to women. They can understand it, because that is a very clear and true statement. I can prophesy that if the women 10 years from now learn that this opportunity has been given to you to pass this law and that you have failed, you will have something to answer for to women.

Professor Fisher spoke of the widows. I do not know very much about their case, but I do know of another type which he indicated, not as women, but as the salaried class. The wives of people who earn salaries have something to say, and I can speak of them. I can outline a typical case of the injustice done to the family of a scientist, we will say. The scientist's wife links her fortunes with his. What he losses, she losses.

Take the case of the scientist in the Government service. He may have reached the highest point possible in his calling—the highest possible point of salary in that calling. But after 25 years of service, the value of which is attested to by unmistakable testimonials of numerous editions of his writings, he finds that his salary in purchasing power is only a few hundred dollars ahead of when he began 25 years ago, although that salary may be over twice as much in the number of dollars. I have a particular person in mind whose services are worth \$2,000,000 to the Government—the Government was willing to entrust the investment of \$2,000,000 to his professional opinion.

I could speak of what is going on now, of the steady movement in economic progress, through the study of subjects such as banking and finance, by women. I have a resolution which was passed by the food production and home economics department of the District of Columbia field division, of the Council of National Defense, at the time when I was chairman of that department and presided over representatives of 26 women's organizations, meeting monthly in the District building in this city. The resolution is as follows:

"DISTRICT BUILDING, July 11, 1919.

"Whereas, The members of the department of food production and home economics of the District of Columbia, field division, Council of National Defense, in meeting assembled, have heard with interest and approval in the reports of representatives of three organizations—the Housekeepers Alliance, Association of Collegiate Alumnae, and the College Womens' Club—that a resolution has been adopted by them, recommending to the Secretary of the Treasury the appointment of an expert commission to investigate the fluctuation in the purchasing power of the dollar, and especially to propose some way in which our legal standard of value can be made more stable:

"Resolved, That we recommend to all women's organizations in the District of Columbia that the subject of stabilization of the dollar be included in their programs for the coming season, with the hope that similar action be taken by these organizations, and that a copy of this resolution be presented to the Secretary of the Treasury and to members of the Banking and Currency Committees of the United States Senate and House of Representatives."

The reason that resolution never reached you gentlemen was because, although we presented this resolution to the Secretary of the Treasury, when the time came for copies to go to you, on inquiry of the District chairman, Mr. Baldwin, whether he would give his signature to it, he said our authority had

evaporated; that the Council of National Defense had disbanded. So there was no reason for sending it to you. But it was, nevertheless, the action that was taken by the women. It is probably of interest to note that the idea was already working in women's minds as early as 1919.

Mr. GOLDSBOROUGH. Would you like this to go into the record?

Mrs. RANSOME. I would like the picture in the Stable Money Graphic to be seen. That has been circulated rather widely in this city and elsewhere.

But, last of all, I would like to say that an organization in which I have taken very active interest for the last 20 years, the Association of University Women, which was formerly the Association of Collegiate Alumnae, mentioned previously, when it was still called by the old name, in accordance with a plan which I had in mind of bringing this matter up in the different programs of the organizations, took the opportunity last April to hear Prof. Irving Fisher at one of their Saturday evening lectures, arranged by the "Public interests committee," which is a national committee, organized for members from all over the United States.

That evening when the women heard Professor Fisher on stabilizing the dollar the rooms were packed. People might possibly think women are not interested in the questions of economics and finance. But the rooms were filled that evening and people were standing. They listened spellbound and took all the literature on the subject I had taken to the meeting.

The result was that, after reading the subject and studying it later, at the first time I could propose it, at their October meeting, after I had been made legislative chairman for the local branch, they indorsed Professor Fisher's plan, or indorsed this particular bill, which is practically Professor Fisher's plan.

Such women feel that the money question is the coming question and that it behooves them to know what sound money is and how to get it.

Thank you, gentlemen.

Mr. STEVENSON. I wanted to ask you one question.

Mrs. RANSOME. I am not a professional economist.

Mr. STEVENSON. I am going to put just a human question to you.

Mrs. RANSOME. Very well.

Mr. STEVENSON. I have been practicing law and farming for 35 years. In 1893, when Mr. Wells speaks of having taken out a life insurance premium which has been reduced 60 per cent, I remember very well—and know him still—a young man with wife and three children who had 50 acres of land he was farming. Our principal money crop was cotton, with a little corn, wheat, and oats, but cotton was the money crop.

Now, the utmost you could do at that time by operating the farm within themselves, without hiring labor, would produce about six bales of cotton. You do not know what a bale of cotton is, but it is 500 pounds of lint cotton. I take it you are not familiar with that.

In 1893 you could pay for the ginning of the cotton—that is, getting the seed out of it—with the seed and have about \$3 a bale left. That would be \$18. Cotton sold then on an average of 6 cents a pound. That was \$30 a bale; six bales brought \$180, and you had \$18 for the seed after you had paid for the ginning. That was a year's work for man, wife, and children. They were selling something and they were not buying anything much. Take off \$50 for the fertilizer, and you had \$148 left for the year's activities.

Those people are the ones who back what is known as the populistic movement for more money for less buying power of the dollar.

What is the situation to-day? I want to see if you want to put folks right back to that place. That same man, raising the same six bales of cotton, can sell his six bales of cotton for \$750 on to-day's market, or just a little over that; he can get for the seed \$10 a bale in addition to paying for the ginning, \$60; that is \$810 for what he got \$198 for; and his wife and children go to town and they get something to shop with, and they have been having something to shop with ever since this change in the dollar began.

Are we prepared to turn things back to where these life insurance policies were taken out in 1893? Is it judicious to do it? I do not believe you would want to do that, would you?

Mrs. RANSOME. No; because money does not have that meaning to me.

Mr. STEVENSON. That good lady can now dress well and be comfortable. True, that is not a munificent sum. They would have to pay probably \$75 for the fertilizer instead of \$50, but they will have \$700 to the good after paying those things—that is, after paying the additional expense that was involved instead of \$148. Those people would turn me out of Congress in two months

if I undertook to vote to do something that would put the thing back to where the dollar of 1893 puts us.

Mrs. RANSOME. Mr. Chairman, I did not want to imply that I would do that.

Mr. STEVENSON. No; I did not believe you did.

Mrs. RANSOME. I shall be perfectly contented to start where we are now, to prevent more trouble in the future. I simply wanted to bring out from the facts that we were in the face of a changed dollar; that there is something the matter with it that it does change, and we who use the dollar feel it very keenly. I would simply begin from the time indicated in the bill, with the idea of regulating the dollar so as to prevent any further depreciation or fluctuation.

Professor FISHER. We are trying to prevent it going back.

Mr. WELLS. I have not suggested that we go back to 1893, but that we start with 1923.

Mr. STEVENSON. You suggest, however, that the change in the dollar has been a disastrous thing for the people, the widows and orphans in particular, and the servant girl who had the money out at interest in 1893.

Mr. WELLS. There are people to whom it has been disastrous. I take it, in the last nine months. The farmers up in our country—and I have a farm of my own—have found the trouble of the dollar has been disastrous to them.

Mr. STEVENSON (presiding). Yes, we have not been particularly prosperous in the recent months.

The committee will adjourn until to-morrow morning at 10.30.

(Thereupon, at 4.30 o'clock p. m., the committee adjourned, to meet to-morrow, December 20, 1922, at 10.30 o'clock a. m.)

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COMMITTEE ON BANKING AND CURRENCY,  
HOUSE OF REPRESENTATIVES,  
Washington, D. C., Wednesday, December 20, 1922.

The committee met at 10.30 o'clock a. m., Hon. Louis T. McFadden, chairman, presiding.

The CHAIRMAN. The committee will come to order.

Mr. GOLDSBOROUGH. Mr. Chairman, I am going to suggest, in view of the fact that the committee are anxious to get through with this hearing before noon, that we proceed now, and that the speakers confine their remarks to 20 minutes each as nearly as possible.

The CHAIRMAN. Unless there is objection, we will now proceed with the hearing. Who is the first speaker?

Mr. GOLDSBOROUGH. Dr. Frank A. Wolff.

**STATEMENT OF DR. FRANK A. WOLFF, PHYSICIST, BUREAU OF STANDARDS.**

Doctor WOLFF. Mr. Chairman and gentlemen of the committee, I feel some hesitancy in appearing before you, a mere scientist and engineer, but I came here at the invitation extended to me by Mr. Goldsborough, the author of the bill under consideration, to present my views. It should be emphasized that I appear merely as a citizen and not in any official capacity.

I feel that I can speak in a way for the various hitherto unarticulate groups of our population who have been the principal victims of instability of purchasing power—the scientific and professional men, the teachers, the clergy, and the unorganized workers. These have been compelled to submit, not, however, without a grumble, at a huge aggregate loss in the purchasing power of their salaries and wages. I also speak in a similar manner for those whose savings yield fixed incomes (the savings-bank depositors and small investors in bonds) and for those who have placed their all in life insurance. I also feel that I may in a way even be privileged to speak for the Senators and Members of Congress in so far as they may be dependent on a fixed wage.

Very few, indeed, of these groups have any clear idea of the cause or causes of their financial distress. They merely know that something is radically wrong and are groping in the dark for a solution. As one who has been victimized, I have made it my duty to seek the truth and in undertaking the

task I have followed the same method as is employed in scientific research and investigation.

1. To ascertain all the facts pertaining to the subject.
2. To formulate a satisfactory explanation which fully accounts for all the facts.

My conclusion, briefly stated, is that the greatest present-day world evil, from which most other evils spring, is the power of control, vested in private hands, over the purchasing power of money, whether it be the dollar, the pound sterling, the franc, the lire, the mark, or the ruble.

This is not to be considered as a radical rambling; it is a conclusion reached after calm deliberation by me and by others before me. For example, John C. Calhoun, numbered among the greatest constructive minds developed by this country, thus expressed himself in 1834:

"Place the money power in the hands of a combination of a few individuals, and they, by expanding or contracting the currency, may rise or sink prices at pleasure, and by purchasing when at the greatest depression, and selling when at the greatest elevation, may command the whole property and industry of the community and control its fiscal operation. The banking system concentrates and places this power in the hands of those who control it. Never was an engine invented better calculated to place the destinies of the many in the hands of the few, or less favorable to that equality and independence which lies at the bottom of our free institutions."

The situation into which we have permitted ourselves to drift calls for three things:

1. The impartial determination by a competent, fact-finding commission of all the facts relating to the mechanism whereby the purchasing power of money may be manipulated.
2. The ascertainment of the beneficiaries and the victims of such control.
3. The finding of a satisfactory remedy which will automatically tend to restore equilibrium when such equilibrium has been displaced.

This duty clearly devolves upon Congress, for is not Congress empowered by section 8, Article 1 of the Constitution "To coin money, regulate the value thereof, and of foreign coin and fix the standard of weights and measures"?

We here see that the two powers with regard to money on the one hand and weights and measures on the other are mentioned in the same breath, as it were, but the question can very properly be asked: "What has Congress done in the exercise of these most important powers?"

Gentlemen, I regret to say that both have been almost ignored. The fixing of standard weights and measures in a sense has been and is now intrusted to the Bureau of Standards which I have had the honor to serve since its organization, although the organic law establishing the bureau does not appear to give to it any delegated power to fix such standards. What it has aimed to do has been to construct and devise standards of every description on the basis of the most thorough scientific research in order to assure the highest possible accuracy and permanency of value for all time. That is how we at the bureau interpret the term "fixing."

What Congress has done is very briefly set forth in the following memorandum:

#### MEMORANDUM IN REESTABLISHMENT OF WEIGHTS AND MEASURES.

Congress has never by direct legislation established a uniform, mandatory system of weights and measures for use in the United States, and it seems that our customary system of weights and measures depends for its validity on the common law, general custom, and its establishment by the States, which latter, in the failure of Congress to exercise the power granted by the Federal Constitution, undoubtedly retained the power to fix the standards in their respective jurisdictions.

The principal actions of Congress itself in relation to weights and measures are as follows:

In 1828, a certain troy pound was adopted as a standard for coinage.

In 1836, by joint resolution, it directed the Secretary of the Treasury to deliver to the governor of each State "a complete set of weights and measures adopted as standards and now either made or in process of manufacture for the use of the several customhouses."

In 1866, the metric system was legalized for use throughout the United States and equivalents for the units of this system were given in terms of the weights and measures now in use by the United States.

In 1911, Congress provided that the standard troy pound of the Bureau of Standards should be the standard troy pound for the regulation of coinage (thus repealing the act of 1828 on this subject).

In 1915, a mandatory standard barrel was adopted for the sale of dry commodities whether in intrastate or interstate commerce.

A standard lime barrel and standard baskets have also been adopted for use in interstate commerce only. While these standards are mandatory, the limitation to interstate commerce use makes it appear that Congress may have considered itself to be regulating commerce rather than fixing a standard.

It is believed that the above résumé of legislation indicates that the first statement made herein is correct. Congress has, of course, many times recognized the customary standards and referred to them in legislation, but it can not be concluded that these have been definitely fixed and established as standards.

Now, as to its even more important power "To coin money, regulate the value thereof, and of foreign coin," Congress has practically limited itself as far as "regulating the value thereof" is concerned to fixing the weight and fineness of composition of coins, whether gold, silver, nickel, or copper. It did not recognize that this merely fixed the value of such coin in terms of the number of grains of gold in the dollar, which is not an expression of real value, value in terms of commodities.

In recent years our whole banking system has been reorganized under the Federal reserve act which created a system dominated by the private financial and banking interests of the country. These were intrusted with the power of issuing paper money and creating bank credits and were thereby placed in the position of imposing upon the American people a species of economic servitude made possible by the control of the purchasing power of money through credit inflation on the one hand and credit deflation on the other.

First, with regard to the era of inflation extending from our entry into the World War until the armistice. I have been told on reliable authority that certain economists went to see President Wilson before our actual entry to urge upon him, a student of political economy, not to permit this country to engage in the same kind of war financing as was even then bringing the belligerents to the verge of financial bankruptcy judged by all ordinary standards. However, they met with no success.

As a result, we entered a preliminary orgy of inflation. First, the prices of certain basic commodities, such as steel, copper, wheat, etc., were fixed, and these in turn fixed automatically price levels of other commodities in the same commodity groups, thus bringing about a general rise in price levels. As a result, the farmer soon found that his wheat at \$2.20 was not yielding any more in purchasing power than at pre-war figures. Similarly, labor sought to sustain its pre-war living standards, but only in the case of strongly organized workers situated in strong tactical positions could they compel their wages to keep step with the increasing price levels; or, in other words, the depreciated purchasing power of the dollar. It thus came about that at the time of the armistice the nominally increased return to the farmer and to the worker had been abstracted from him, in whole or in part, through the subtle power of taking away his apparent gain and generally more by paying him in dollars of correspondingly less value.

The professional groups, the teachers, the clergy, and the unorganized workers known as the "white-collared group" had hardly even a "look-in." Ignorant of the real causes, they took it out in cursing the profiteer whom the Government was ever promising to curb without carrying out the promises. Instead it was actually doing what it could to encourage further inflation. These groups, vainly protesting against the high cost of living, did not realize that this was merely another expression for the more basic fact that money was being depreciated in real value.

After the armistice came the real orgy of inflation which began as soon as it was announced that "the harness would be taken off of business." Price levels shot upward, while at the same time the Government assured the Nation that it was doing everything possible to reduce the cost of living. A Secretary of the Treasury was even quoted as charging that making statements alleging that our dollar had depreciated were treasonable—and he got away with it.

Instead of doing anything to curb the unconscionable postarmistice inflation, the people were subjected to the Coué treatment by widespread assurances by public men—who did not know what they were talking about—the public being

told over and over again that the high cost of living was surely coming down, counting on autosuggestion to the subconscious mind to repeat to itself the refrain, "Day by day, in every way, the high cost of living is falling." [Laughter.]

This is no idle jest. I heard the distinguished Yale economist, who has done so much to establish the principles on which the bill under consideration is based, relate to a Washington audience his experience with a "high Government official," whom he had asked to explain how he could be telling the public that prices were coming down when everything was actually being done to further boost prices, and from whom he got the answer: "If the public is led to believe that prices are coming down, then they will come down."

The inflation had finally been carried to such heights that so-called unrest prevailed throughout the land, and something had to be done. Hence deflation was decided upon. Dollar wages were far above pre-war levels, and must therefore, be brought back. To justify this step it must be made to appear that the high cost of living was correspondingly coming down, so the first victim of deflation was the farmer, whose bank credit was curtailed to force him to sell at a sacrifice, while the merchants and manufacturers were permitted to carry on as before.

The CHAIRMAN. Can you state the period that you are referring to now?

Doctor WOLFF. That would be about May, 1921, or thereabouts.

Mr. KING. Professor, did not that prevail in September, 1920?

Doctor WOLFF. Well, it began earlier; the effect did not fully manifest itself until somewhat later. Now, then, it looks very much—and that is a subject for your real study—as though farm prices were brought down first with that object in mind; that is, to make it appear as though the cost of living had actually come down, so as to start this bringing down of wages.

Mr. MACGREGOR. Do you mean that was a deliberate action or an unconscious action?

Doctor WOLFF. Well, there was a lot at stake; billions were at stake.

Mr. MACGREGOR. To some particular group of individuals, you mean?

Doctor WOLFF. Precisely, the group who understood what was going on. I might say at this point that while you gentlemen, in considering appropriations for the different Government activities are talking about economies, you have cut down the appropriation for the Bureau of Labor Statistics, which has been doing magnificent work in the analysis of these price figures, in securing the real figures on which you can judge changes in price levels. Now, you think you are saving money. At the same time the Federal reserve bank at New York has a large staff of economists working on those same questions. Of course, you say the bank pays that itself. But is it not true that all profits in excess of 6 per cent made by the Federal reserve banks go back into the Public Treasury? So they spend the money which might have gone into the Treasury and which might have been spent in a more impartial investigation of these very, very important economic questions.

The result of both the inflation and deflation was perfectly obvious in advance to the student of economics. I might be permitted to repeat that I have it on pretty reliable authority that two distinguished economists went to see President Wilson before we entered the war, when it was quite obvious that we would enter the war, and they warned President Wilson, himself a student of political economy, about the evils of inflation if the matter were not taken into account in advance, and they urged him to do something to prevent that. There already had been plenty of indications from what was happening on the other side, where the nations were even then on the verge of bankruptcy, judged by ordinary standards. They took it upon themselves to urge the President not to permit this country to fall into the same troubles.

The point is this, that the higher the point to which the inflation is carried the more disastrous is going to be its effect and the more disastrous, as well, the evils of deflation, which must inevitably follow. From that the farmers are now suffering most acutely.

Mr. MACGREGOR. Do you suppose President Wilson understood this stabilization proposition?

Doctor WOLFF. I am quite sure that he ought to have understood it.

Mr. MACGREGOR. From your standpoint everybody ought to understand it.

Doctor WOLFF. I certainly would not exclude the trained economist. President Wilson was a doctor of philosophy of Johns Hopkins University, where he studied political economy.

The result of both the inflation and deflation, as I said, was perfectly obvious in advance to the student of economics. Just to think, \$40,000,000,000 transferred from one set of pockets to another during the period of inflation and \$20,000,000,000 during the period of deflation. But was it in either case in conformity with the preamble to the Constitution which breathes its spirit, the preamble to the instrument which you have all sworn to uphold and defend?

Note how it reads:

"PREAMBLE TO THE CONSTITUTION.

"We the people of the United States, in order to form a more perfect Union, establish justice, insure domestic tranquility, provide for the common defense, promote the general welfare, and secure the blessings of liberty to ourselves and our posterity, do ordain and establish this Constitution for the United States of America."

Have inflation and deflation, made possible through the nonexercise of your power, the power vested in Congress, to regulate the value of money, tended—

To form a more perfect Union, or to endanger its disruption?

To establish justice, or to enthrone injustice?

To provide for the common defense, or to foment an internal clash of arrogant interests?

To insure domestic tranquility, or to engender unrest?

To promote the general welfare, or to reduce our standards of living?

To secure the blessings of liberty to ourselves and to our posterity, or to strengthen the economic bonds which fetter us in our normal development?

And this situation has been brought about largely through a lack of understanding of the basic economic laws of money and credit, as has been so ably presented to you by Professor Fisher.

Now, I might analyze for you the basic equation which you all ought to know and have at your fingers' ends. If I may, I will write on this chart the equation:

$$MV + M'V = q_1p_1 + q_2p_2 + q_3p_3 + \text{etc.}$$

If  $M$  represents the average amount of currency in circulation during any year,  $V$  represents the number of times it changes hands in the course of the year, then  $M$  times  $V$  obviously represents what is paid out in cash, mainly for goods, because payments for service are translated almost immediately into payment for goods.

That is not all. To that you have to add the corresponding term  $M'V'$ , where  $M'$  represents the amount of deposit currency subject to check, bank credit, and  $V'$  represents the number of times it changes hands in the course of a year, or the turnover.

Now, this first term,  $MV$ , is only about 10 per cent of the whole. This part,  $M'V'$ , depending on bank credit, is nine times as important. [Indicating.] The sum of these two things is what is paid out for goods. Now, that must be equal to  $q_1p_1$  plus  $q_2p_2$ , etc., the  $q$ 's representing the quantities of each commodity and the  $p$ 's their average price. The equation may be simplified in form by working for the sum of terms on the right:  $QP$ ,  $Q$  representing an index of production and  $P$  the price index, so that the equation becomes:  $MV + M'V' = QP$ .

Whatever happens to disturb any one of these terms of the equation has to compensate itself by changing the others.

As a result of the inflation of currency and credit up to the crisis the left side was more than doubled and since production,  $Q$ , remained as a whole substantially constant,  $P$ , the price index, was also more than doubled.

That  $Q$  remained substantially the same was brought out by Professor King, who said that even in the case of pig iron the fluctuation from month to month could hardly be noticed on the production curve. Consequently the left side of the equation is doubled or more with  $q$  remaining the same, and  $p$  had to go up correspondingly. So, therefore, you have not merely to consider the currency but also the credit at the same time, if you want to do anything toward stabilization.

Mr. GOLDSBOROUGH. When you say "credit" you do not mean the credit extended by the individual banker to the individual customer? You mean the general volume available for that purpose?

Doctor WOLFF. For that purpose; yes.

Mr. STEVENSON. That is made up of the sum of the individual credits?

Doctor WOLFF. Yes.

Mr. GOLDSBOROUGH. The question was asked if this plan would tend to control the individual groups; that is, tend to control the relation between the banker and his customer.

Doctor WOLFF. I think that would not be the case any more than now. I think they will have even less under this bill than at the present time.

It might interest you to know to what extent you have flimflammed yourselves through permitting the value of money, the purchasing power of the dollar, to slip out of your control. Congressmen and Senators get a salary of \$7,500. For convenience the cost of living may be taken as 100 per cent. in the fiscal year ending June 30, 1914. You have been getting that since 1914 at least, I believe.

Mr. STEVENSON. Since 1902, I think it is.

Doctor WOLFF. As I say, for convenience, the cost of living may be taken as 100 per cent in the fiscal year ending June 30, 1914. In the next year the cost of living rose. This is the best index number—from the standpoint of your salaries, not wholesale prices or retail prices of food. The cost of living in general as shown by retail prices of food, clothing, rent, fuel, etc., went up 1.8 per cent above the fiscal year 1913-14. The next year it went up 4.3 per cent above the same starting point, the next year 18.9 per cent, the next year 42.6 per cent, and the next year 69.5 per cent. In 1920 it went up 96.9 per cent. The dollar shrunk in inverse ratio. Now, if you would go around to the sub-treasury and draw out gold, you would get as much now as ever. But I imagine that no Congressman uses his salary in that way. He uses it not for gold, for which he has no use, but for bread and clothing and other necessities. He could not buy as much, but only a little less than half as much, in 1920 as he could in 1913 with his salary. If Uncle Sam would make good to you the loss in the purchasing power of your salaries, he would have had to pay you in 1914-15, the first year, after a slight depression of 1.8 per cent in the purchasing power of the dollar, the sum of \$135. The next year he would have paid you, in order to make up your loss, \$423.50; the next year it would be \$1,417.50 in addition to your regular salary; the next year, 1917-18, \$3,210; the next year, \$5,212.50; and for 1919-20 he would have had to pay you \$7,267.50; making a total supplementary payment that you ought to have had to make good the losses in the purchasing power of your salary of \$17,565.

Bringing this record up to date, there are to be added \$7,050 and \$5,340, respectively, for the fiscal years 1921 and 1922, thus making the total to July 1 of this year \$29,955, or an average of approximately \$3,750 per year for the past eight years; that is, 50 per cent of your salaries. Moreover, this sum is increasing at the present time at the rate of \$4,500 per annum. Expressed in other words, your loss in eight years has been \$4 for every dollar in your annual rate of pay. This was because you did not take it upon yourselves to regulate the purchasing power of money under the provision of the Constitution and along the lines set forth in the preamble to the Constitution.

Mr. MACGREGOR. Professor Fisher made a statement that has been running through my mind. He said, I think, that if in 1896 we had put a dollar in a savings bank we would have less now, including interest, than what it was worth when the money was put in.

Doctor WOLFF. He cited the case of the servant girl who deposited a hundred dollars in 1896 and took it out in 1920. She actually got \$200, but that \$200 had a purchasing power of only about \$70.

Mr. FENN. She lost money?

Doctor WOLFF. She actually lost on the principal and interest, in purchasing power.

Mr. MACGREGOR. She got considerably more than double—I mean, in dollar value?

Doctor WOLFF. She got twice as many dollars. With 3 per cent interest, compounded, the principal would have increased to double the original amount in that period from 1896 to 1920.

Mr. FENN. But with the addition of \$100 it purchased less than the original \$100?

Doctor WOLFF. Yes, sir. If you express this in other words, it comes out like this: If you take a man who, during the period from 1914 to 1920 has been receiving the same salary, a uniform salary, then for every dollar of annual salary, he has been flimflammed out of four times that number of dollars.

Mr. STEVENSON. That applies where a man is strictly getting a salary?

Doctor WOLFF. Yes.

Mr. STEVENSON. Suppose a man is a producer also, and part of his income is from production of commodities which rise in value, so that half of his income, which he gets from production, will rise in value, and half of his income is a fixed salary. Now, the salary goes down and the commodities which he produces go up. Take my own case. I produce cotton, and I was very much encouraged at a time when my salary was going down to about 40 per cent of what it nominally was, to have my cotton going up to about twice what it had been before. About half of my income jumped and was about doubled, while my income from my salary here went down.

Doctor WOLFF. I said at the beginning of my statement that I was speaking for those Congressmen and Senators who had no other income than their salaries. Most of us are in that condition, we of the salaried class.

Mr. STEVENSON. Unfortunately for me that condition did not last, because cotton took a tumble.

Doctor WOLFF. And you probably did not appreciate that, while you got twice as many dollars for your cotton, the purchasing power of those dollars was nowhere near twice as great, and finally did not equal in purchasing power what you got for your cotton before the inflation started; that is, you were fooling yourself.

Mr. STEVENSON. When the cotton tumbled I was forcibly reminded of that fact from both sources of income.

Doctor WOLFF. As I said, the same rule applies to all whose salary, wages, or income have been stationary. In case of increased pay during the period the added compensation must, of course, be deducted from the above unless the increase in pay covers promotion to a higher position normally carrying a correspondingly higher pay.

Much has been said of the increase in Government expenditures, but the real facts are not ascertainable unless we express the expenditures under comparison in terms of the same unit.

This is clearly shown if we take as our basis the civil expenses as determined by the late Dr. E. B. Rosa, as given in the table on page 397 of Professor Fisher's testimony at the joint hearing before the House and Senate Committees on Civil Service, May 27, 1921. While the dollar cost which remained practically stationary until 1920, notwithstanding the great decrease in the purchasing power of the dollar, there was a considerable rise in 1920 which was, however, largely explainable by increased civil activity, as for example, the 1920 census, the expansion of the internal revenue, of the State Department, a large postal deficit (resulting from increased pay to the railroads), etc., as fully discussed in Doctor Rosa's monograph.

Expressing the expenditures for each of the years given in commodity dollars, we find that even the expenditures in 1920 on any basis of comparison, whether it be wholesale commodity dollars, retail food dollars, or cost of living dollars, are actually less with the exception of one year than in 1914, taken as a basis of reference, as shown in the following table:

*Net civil expenditures 1910-1920 on basis of 1913-14 purchasing power of the dollar.*

Fiscal year ending June 30—	Net United States civil expenditures.				Bureau of Labor Statistics index numbers.		
	Amount.	Per cent.	Per capita.	Per cent.	Wholesale commodities.	Retail foods.	Cost of living.
1910.....	\$207,125,688	98.6	\$2.24	104.2	98.2	90.0	.....
1911.....	196,640,988	93.6	2.10	97.7	97.2	91.6	.....
1912.....	202,511,853	96.4	2.13	99.1	97.9	93.9	.....
1913.....	210,039,082	99.9	2.18	101.4	100.5	97.9	.....
1914.....	210,162,388	100.0	2.15	100.0	100.0	100.0	100.0
1915.....	231,298,542	110.0	2.33	108.4	100.3	101.5	101.8
1916.....	201,427,156	95.8	2.00	93.0	108.5	104.0	104.3
1917.....	199,860,650	95.1	1.96	91.2	150.4	128.3	118.9
1918.....	222,458,285	105.8	2.15	100.0	198.3	153.7	142.8
1919.....	231,858,252	110.3	2.21	102.8	203.8	177.1	160.5
1920.....	366,550,410	174.4	3.45	160.5	243.1	197.1	196.9

## Equivalent net civil expenditures.

Fiscal year ending June 30—	On basis of wholesale commodity index.				On basis of retail food index.				On basis of cost of living index.			
	Amount.	Per cent.	Per capita.	Per cent.	Amount.	Per cent.	Per capita.	Per cent.	Amount.	Per cent.	Per capita.	Per cent.
1910...	\$210,922,000	100.4	\$2.28	106.0	\$230,140,000	109.5	\$2.49	115.8	.....	.....	.....	.....
1911...	202,306,000	96.3	2.16	100.5	214,674,000	102.1	2.29	106.5	.....	.....	.....	.....
1912...	206,853,000	98.4	2.18	101.4	215,668,000	102.6	2.27	105.6	.....	.....	.....	.....
1913...	208,994,000	99.4	2.17	100.9	214,545,000	102.1	2.23	103.7	.....	.....	.....	.....
1914...	210,162,000	100.0	2.15	100.0	210,162,000	100.0	2.15	100.0	\$210,162,000	100.0	\$2.15	100.0
1915...	230,597,000	109.7	2.32	107.9	227,870,000	108.4	2.30	107.0	227,199,000	108.1	2.29	106.5
1916...	185,617,000	88.3	1.84	85.6	193,680,000	92.2	1.92	89.3	193,123,000	91.9	1.92	89.3
1917...	132,886,000	63.2	1.30	60.5	155,776,000	74.1	1.53	71.2	168,091,000	80.0	1.65	76.7
1918...	119,409,000	56.8	1.15	53.5	144,735,000	68.9	1.40	65.1	155,783,000	74.1	1.51	70.2
1919...	113,768,000	54.1	1.08	50.2	130,919,000	62.2	1.25	58.1	136,790,000	65.1	1.30	60.5
1920...	150,782,000	71.7	1.42	66.0	185,972,000	88.5	1.75	81.4	186,161,000	88.6	1.75	81.4

The loudest objections to the "rising" Government expenditures have been voiced by the business interests who directly pay the largest bulk of the taxes. The money for payment of these taxes was derived by them from profits on the manufacture or sale of commodities, and it is interesting to note that as compared with 1914, in 1919 a contribution of only 50 to 60 per cent of the volume of the same commodities would have sufficed for the payment of that part of Government cost chargeable to all civil activities.

Since the cost of the civil government is made up of the cost of commodities and the cost of the services expressed in salaries and wages, and since the commodities purchased by the Government were bought on annual contracts or on open bids at prevailing market prices, the conclusion is inescapable that the "savings" demonstrated by the tables and curves were made at the expense of employees.

The amounts involved are staggering in the aggregate. No exact calculations can be made on account of the impossibility of segregating expenditures for goods and services without a complete reexamination of every voucher. The following table, however, gives a measure of the injustice wrought by the deceptive dollar, the amount for each year since 1914 being given:

*Net decrease in United States civil expenditures adjusted on the basis of depreciated purchasing power of the dollar (1914 taken as normal).*

	On basis of wholesale commodity index.	On basis of retail food index.	On basis of cost of living index.
1915.....	<sup>1</sup> \$20,435,000	<sup>1</sup> \$17,708,000	<sup>1</sup> \$17,037,000
1916.....	24,515,000	16,482,000	17,039,000
1917.....	77,276,000	54,386,000	42,071,000
1918.....	90,753,000	65,427,000	54,379,000
1919.....	96,394,000	79,243,000	73,372,000
1920.....	59,380,000	24,190,000	24,001,000
Total.....	327,883,000	222,020,000	193,825,000

<sup>1</sup> Increase.

The total of nearly \$200,000,000 in the last column represents the most conservative estimate of the loss to the employees in the civil groups up to July 1, 1920. It must, however, be noted that the sum is expressed in terms of 1914 dollars, now worth 1.6 times as much as our present-day dollars. Hence, the total up to July 1, 1920, would amount to at least \$300,000,000—1922 dollars. Nor has any allowance been made for the fact that the Government paid for goods at the higher prevailing market or contract prices and that finally the above sum is far too low, as no allowance has been made for the great increase in the number of Federal employees in the civil groups between 1914 and 1920. Nevertheless, the reclassification bills before Congress still hang fire and Government pay still remains on the same basis as decades before the war.

As a specific illustration I might take the case of the retiring director of the Bureau of Standards who has held that position ever since its establishment in 1901. His initial salary was \$5,000 per annum. His present salary is \$6,000 per annum, but that \$6,000 is equivalent to only \$2,400—1901 dollars. Thus he has been flimflammed out of 50 per cent of the purchasing power of his initial salary, while at the same time the bureau has grown enormously.

Now, as to the Goldsborough bill under consideration by this committee, it has the important object of stabilizing the purchasing power of the dollar, one of the most important duties imposed upon Congress by the Constitution, which you can no longer avoid. With regard to the mechanism by which this is to be accomplished, this bill rests on the retention of gold as the basis of our money system, though departing from the existing practice in varying the amount of gold defining the dollar to compensate for the changing value of gold in terms of commodities.

This represents, in a way, the most nearly orthodox method of establishing the goods dollar, being a concession to an ingrown belief that there must be something (and that something must be gold) behind the promise to pay issued by the Government, besides faith in that Government. And hence, the continuance of the use of gold for that purpose.

However, I believe that a solution can be found without recourse to varying the number of grains of gold behind the dollar by regulation of the total volume of circulation of both currency and bank credit principally, however, through regulation of the volume of money of account which plays a rôle nine times as important as currency itself, in proportion to the volume of production—that is, to the actual requirements of business on a stabilized dollar basis. This would have the further advantage of stabilizing the value of gold itself in relation to the goods dollar, this being automatically accomplished because the average price level would no longer change.

I note that the wholesale price index is to be made the basis of the goods dollar in this bill. While admitting that the wholesale price index can be more readily and accurately ascertained, it is plain that what the consumer is after is a retail goods dollar—a market basket dollar. Hence, further steps must be taken to prevent undue retail price fluctuation resulting from manipulation which is also true to a lesser degree in the case of the wholesale goods dollar.

Mr. STEVENSON. I do not understand that the Goldsborough bill in any way interferes with bank credits; it only has to do with the regulating of currency?

Doctor WOLFF. But you can not regulate purchasing power without touching bank credits as well. It is the total volume of both that determines. It seems to me that the credits on the stable dollar basis in any line of business would be determined by the volume of production.

Mr. STEAGALL. Who is going to regulate that; where does that power rest?

Doctor WOLFF. In some Government board, or the Federal Reserve Board.

Mr. STEAGALL. You have just called attention to the fact that we have a board that has been doing that.

Doctor WOLFF. It has not been doing it; it has failed to do it.

Mr. STEAGALL. To some extent. I do not know what would have happened to them if they had done it much more.

Doctor WOLFF. If there had been no inflation you would have no deflation now. The one brings on the other. We are suffering still from inflation because deflation has not gone back to where it was originally. We do not expect it will. The people in agricultural classes had the benefit of the rise, and they have been suffering from the partial fall. Many of them are worse off now than they were before.

Mr. STEAGALL. The fall was not partial; it was complete and very effective. It wiped a great many people clear off the earth.

Mr. GOLDSBOROUGH. What you mean in answer to Mr. Stevenson's question is this, that while this bill does not directly control inflation or deflation, by controlling the gold content in the dollar, the credit volume being limited by the gold volume is indirectly controlled?

Doctor WOLFF. It should work out that way.

Mr. GOLDSBOROUGH. In the aggregate?

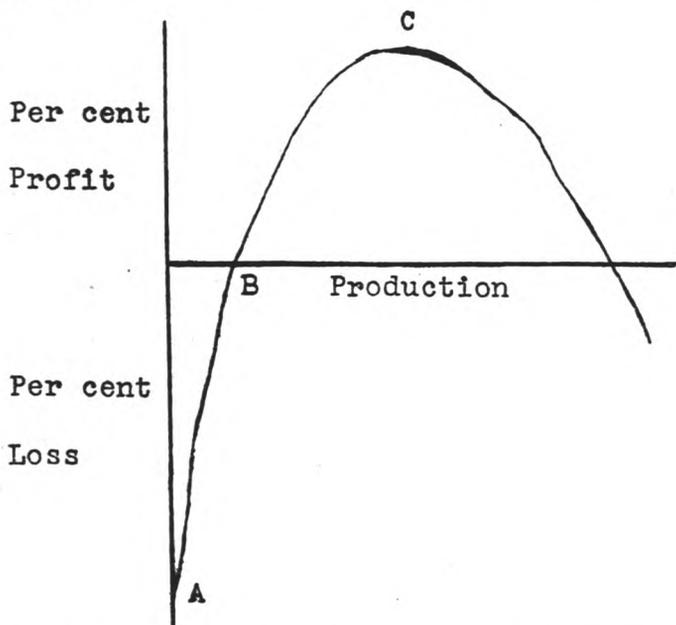
Doctor WOLFF. If you adopted the scheme that I have proposed, your dollar would always be worth the same. In other words, it would stabilize the value of the gold dollar under the scheme which I have presented.

In answer to Mr. Steagall's question I would like to say that the distinction should be made between expansion of the currency and inflation of the currency and also between contraction and deflation. By expansion of the cur-

rency I mean expanding the currency to meet actual increasing business and production requirements. By contraction the reverse is meant. That was originally intended by those who were led to support the Federal reserve act. It was not intended to have a fixed currency system, because the volume of production changes. But you must get rid of inflation and deflation.

The gravest threat to real stabilization lies, however, in the development and perfection of schemes of business organization which make possible at any time even panic prices based on artificially created scarcity. I need only cite the case of cotton, the acreage planted being now greatly less than for many years, and it has even been reported that a monument to the boll weevil is to be erected in South Carolina for relieving the growers of a surplus production.

The law of supply and demand seems to be rapidly giving away to the law of maximum profit which may be briefly described by reference to the accompanying figure:



Consider any product which has been monopolized or the production of which is controllable on a national scale through organizations of the producers, the wholesalers, the middlemen, or the retailers.

Referring to this diagram, it is a business axiom that if there is no production or no goods are sold, then there is a complete loss of all overheads, as represented by the point A on the curve. As production increases, the losses decrease until at some stage, represented by B, there is neither loss nor gain. Beyond this point, profits increase up to a maximum represented by C. Still further increased production results in declining profits which finally pass to the region of net loss.

It is, of course, good business to control, if possible, the production of goods or the quantity of goods on the market to correspond to the point C; but as far as the consumer is concerned, this represents a condition of scarcity—less than the market would be able to absorb at a fair profit. If any of you gentlemen are interested in this phase of the question, I would refer you to the Senate Report No. 829 on reconstruction and production, Sixty-sixth Congress, third session, to the Federal Trade Commission's letter on the open sales organization, addressed to President Harding, and to the report of Mr. Barney Baruch as chairman of the War Industries Board, entitled "American Industry in the War."

In this report Mr. Baruch pays high tribute to the open sales organizations and cites the various ways in which they could act in carrying out purposes of greatest public benefit, but he does not stop there. He says further:

"These combinations are capable also—and very easily capable—of carrying out purposes of greatest public disadvantage. They can so subtly influence production as to keep it always just short of current demand and thus keep prices ever high and going higher. They can encourage a common understanding on prices, and, without great difficulty, can hold price levels at abnormal positions. They can influence the favoring of one type of buyer over another. Nearly every business man in the country has learned, by the way, that a shortage in his product, if it be not too great, is distinctly to his advantage. Trade associations with real power can, in respect to most of the staples, so influence production as to keep the margin of shortage at a point most favorable to high prices and rapid turnovers.

"The question, then, is what kind of Government organization can be devised to safeguard the public interest while these associations are preserved to carry on the good work of which they are capable. The country will quite properly demand the vigorous enforcement of all proper measures for the suppression of unfair competition and unreasonable restraint of trade."

I should like also to read from page 100 of this report, where Mr. Baruch says:

"The country will quite properly demand the vigorous enforcement of all proper measures for the suppression of unfair competition and unreasonable restraint of trade. But this essentially negative policy of curbing vicious practices should, in the public interest, be supplemented by a positive program, and to this end the experience of the War Industries Board points to the desirability of investing some Government agency, perhaps the Department of Commerce or the Federal Trade Commission, with constructive as well as inquisitorial powers—an agency whose duty it should be to encourage, under strict Government supervision, such cooperation and coordination in industry as should tend to increase production, eliminate waste, conserve natural resources, improve the quality of products, promote efficiency in operation, and thus reduce costs to the ultimate consumer.

"Such a plan should provide a way of approaching industry, or rather of inviting industry to approach the Government, in a friendly spirit, with a view to help and not to hinder. The purpose contemplated is not that the Government should undertake any such far-reaching control over industry as was practiced during the war emergency by the War Industries Board, but that the experiences of the war should be capitalized; its heritage of dangerous practices should be fully realized that they might be avoided; and its heritage of wholesome and useful practices should be accepted and studied with a view to adapting them to the problems of peace. It is recommended that such practices of cooperation and coordination in industry as have been found to be clearly of public benefit should be stimulated and encouraged by a Government agency, which at the same time would be clothed with the power and charged with the responsibility of standing watch against and preventing abuses."

These questions must be solved by you before we can do anything effective in the stabilization of the purchasing power of money.

Unfortunately, it appears that the general trend in this country seems to be in the direction of monopolistic or quasi monopolistic control and limitation of production to secure the maximum profit, whether it be cotton, potatoes, wheat, coal, copper, steel, or what not.

In conclusion, may I sound a warning to the effect that if the plans now under discussion are fully carried out for price control through limitation of production we might as well postpone consideration of stabilizing the dollar and instead look forward to a decreasing scale of living, for the less there is produced the less there will be to distribute even though it may be fairly distributed as between capital and labor or producer and consumer. I think that is all I have to say.

**Mr. GOLDSBOROUGH.** Just one question in regard to your equation. You were contrasting expansion with inflation. Your theory, as I understand it, is that  $Q$ , representing the volume of business, can expand normally, and the volume of money and bank credit expand correspondingly, without inflation; but when the period of legitimate business expansion and production culminates in the period of speculation, if money and credits continue to expand the price level is bound to jump?

Doctor WOLFF. I can put it in this way. If  $Q$  [indicating on plate], which represents the volume of business, increases, then in order to accommodate it without either an increase or decrease of the index number there must be a proportional expansion of  $M' V$ , plus  $M' V'$ . This sum must increase correspondingly to accommodate it, and then the general price level will neither advance nor decline.

There was a lot of talk about the necessity of elastic currency when the Federal reserve act and the Aldrich-Vreeland bill were under consideration. That was what was meant apparently by elastic currency; but we do not want, gentlemen, an elastic dollar, any more than we want an elastic yardstick or bushel measure or anything like that. In other words, we want an elastic volume of currency and credit, but not elasticity in the unit of measure, any more than we would need elasticity in a yardstick.

Mr. STEVENSON. I do not think any intelligent man ever conceived anything else. By an elastic currency we mean a currency the volume of which will expand and contract with the needs of legitimate business.

Doctor WOLFF. That is the purpose of this bill, to control it to that extent and not permit inflation and the deflation which necessarily has to follow in the end.

Mr. KING. How would this bill prevent a tremendous rise in sugar, such as we had a while ago, which was caused by the hoarding of sugar and holding it in one place and financing it through the Federal Reserve Board to the extent of even permitting acceptances to be sold based upon Cuban sugar growing in the field? How would this bill prevent that?

Doctor WOLFF. The purpose of the bill is to regulate average price levels, but it might even go further and curtail credits when something of a grossly speculative nature is working to bring about abnormal conditions.

Mr. STEAGALL. Who is going to determine when there is expansion or inflation, and who is going to say when it is legitimate and when it is speculative? Where are you going to set up a law that will determine that? If you can get a proper law I will vote for the law, but if I have got to vote for some men who will have power to make that decision I do not know where I stand.

Mr. GOLDSBOROUGH. Is not the theory of this bill that the rise or fall in the index number will indicate the proper and legitimate relation between production and expansion?

Doctor WOLFF. If the sugar market alone goes up 100 per cent it will only affect the general price level 1 per cent as a whole, but at the same time the Federal reserve system, or whatever agency is used, could prevent actual inflation going on in any individual case where there is obviously gross discrimination, distortion, or manipulation.

Mr. KING. It looks to me like you would have to repeal the Federal reserve act.

Mr. GOLDSBOROUGH. If that is all, Dr. Wolff, we will now hear from Doctor Shibley. We are very much obliged to you.

#### STATEMENT OF DR. GEORGE H. SHIBLEY, DIRECTOR OF THE RESEARCH INSTITUTE, WASHINGTON, D. C.

Doctor SHIBLEY. Mr. Chairman and members of the committee. I have been asked by Professor Fisher and Representative Goldsborough to bring to your attention a provision that was in the Federal reserve bill of 1913, introduced by Senator Owen, chairman of the Senate Committee on Banking and Currency. The number of the bill is 2639.

The provision in that bill to which I desire to call your attention is in paragraph (d), instructing the Federal reserve system to fix a rediscount rate, and Senator Owen's bill added the words "and promoting a stable price level." The paragraph in full is as follows:

"The Federal reserve bank shall have power \* \* \* (d) to establish each week, or as often as required, subject to review and determination by the Federal Reserve Board, a minimum rate of discount to be charged by such bank for each class of paper, which shall be made with a view to accommodating the commerce of the country and promoting a stable price level." (Page 1730 of Senate Committee hearings, 1913, vol. 2, sec. 15 of the bill.)

Notice the words "and promoting a stable price level." That is, this bill in the Senate of the United States in 1913 contained the provision instructing the Federal reserve system that in fixing the interest rate for money, as distinguished from the interest rate for capital other than money, the aim should

be to promote stability in the price level—stability in the purchasing power of money.

Senator Owen placed that in the bill which he introduced, and that bill with that clause was the administration bill. But the House bill did not contain the clause. In proof that the Owen bill with its clause for stabilization was the administration bill, I quote the accompanying statement by Chairman Owen at a hearing on October 6, 1913, the subject matter before the committee being the consideration of a suggestion by me to the committee that it insert in the House bill the provision in the Owen bill for stabilization. I was the only one, I believe, who in any of the hearings on the Federal reserve bill of 1913 presented a research argument for an instruction by Congress, the policy-determining body under the Constitution, that the aim of the Federal reserve banks and of the Government-commission, the Federal Reserve Board, should be to so control the interest rate on money as to do justice to every one—keep their eyes on the index number of average prices and promote stability in that index number, day after day.

My testimony begins at page 1724 and consists of 136 pages. Senator Owen interrupted me to say, concerning the words, "and promoting a stable price level:"

"I took a great deal of pains to have that clause placed in the bill. I was very much interested in it, because I thought the great thing we needed in this country, both for the creditor class and for the debtor class, was stability, that they might know their relations to each other, and so that they might know there would be no change of contract by a change in the purchasing value of the dollar. For that reason I insisted upon its going into the original draft of the bill." (Page 1768 of Senate hearings.)

In other words, Senator Owen introduced the administration bill, which had been agreed to by President Wilson. Senator Owen had persuaded President Wilson and his advisers to accept the clause for a stable price level.

Permit me to compare that proposed instruction by Congress as to the proper height of the interest rate for money, by describing to you the system in use in the leading nations in Europe while they were on the gold standard.

In the British Isles, during the years while that country possessed the gold standard, the control of the price level since 1844 was in the Bank of England, a semiprivate bank, its board of governors consisting of great merchants, interested in preventing a falling price level—interested in preventing an increase in the purchasing power of money and of debts. That was the attitude of the merchant class who controlled the interest rate at the Bank of England, and that bank was charged by the Government with the duty of taking the lead in fixing the interest rate for money, thereby to determine the height of the price level for commodities, so as to attract to London a proper amount of gold.

The interest rate of the Bank of England was raised and lowered with a view to maintaining the proper quantity of gold reserve. Gold was both a standard of value and a weapon of war, and the governors of the Bank of England carried out the wishes of the British Cabinet as to the quantity of gold to be attracted to London.

In Germany the control of the volume of gold within the nation was by the Government bank, the Imperial Bank, with the head of the Government, the Chancellor, in direct control of the interest rate for money. He it was who gave directions to the Bank of Germany as to its interest rate for money, thereby determining the amount of gold in Germany.

In France this control was in the Bank of France, under the joint control of the Government and of representatives of the merchant class. Napoleon established that bank to escape from the evils of control of the bank rate by the bankers.

But in the United States of America from the time of the founding of the Republic until the enactment of the Federal reserve law in 1913, the control of the bank rate was in the bankers. That bankers' control wrought havoc beyond words to describe. While the leading nations of Europe in close competition, in every way, were forced in self-defense to take the control of the bank rate from the bankers, in the United States, far removed from the danger of invasion, the bankers wrought havoc, being fully in control of both the Government and the bank rate nearly all of the time from 1844 to the election in 1912—the year of the people's peaceful revolution. The outcome of that people's revolution I will briefly relate.

The year before 1912 a people's National House had conducted an investigation of the money trust, showing its greedy tentacles. The people's government that was elected in 1912 set to work to protect the people.

There ensued an unexpected middle course between the programs of the progressives and the conservatives. The two opposing parties in this country have been a pair of opposites, the result being that each party was partly right and partly wrong, thereby holding each other from doing much of anything, except minor reforms or backsliding, until there came about the peaceful revolution at the polls in 1912, followed by the coming in of the people's government, dominated by a coalition between the progressives in both parties, and then the reforms put through were an unexpected middle course between the programs of the progressives and the conservatives, the criterion being the welfare of the Nation.

The first great reform was the revision of the tariff on imports downward, as pledged; but that revised tariff was an out-and-out protectionist tariff, instead of the tariff for revenue only which the party in power had been advocating. Public welfare required a revision that would still leave the established industries at work, namely, a tariff protecting the differences between the cost of production at home and in Europe. This was a competitive tariff, as the Democrats termed it, in place of the monopoly tariff which the short-sighted and selfish business interests had foisted on the Nation. Never in any of the political campaigns had the real tariff issue been discussed. And a tariff commission was installed a little later, so as to secure scientific data on which to revise the tariff and take it out of politics. That nonpartisan tariff program continued until the business interests came back into control of Congress in 1919, and in 1921 in control of both the Presidency and Congress, and the business interests then enacted another monopoly tariff, falsely terming it a protective tariff.

In 1913, while the pressing issue of tariff revision was being pushed, there were two other committees, one in each House, working away on the banking and money question. And here again an unexpected middle course was the result.

We progressives secured Government control of the bank rate for money, thereby to control the price level and prevent the bankers from controlling it. For the first time in the life of our Republic the Government took to itself the power vested in the Government by the Constitution—the power to fix the value of money. And the business interests, the conservatives, secured another part of the new system, 12 Federal reserve banks, owned and operated in common by the citizens chiefly interested—the bankers—along with Government control.

This unexpected middle course was in line with progress, as is demonstrated by the fact that no considerable proportion of the people are advocating the ending of the reserve banks under Government control by returning to the private reserve banks. The private reserve banks had loaned their reserves on call for use on the New York Stock and Produce Exchanges, and these private reserve banks shifted the interest rate up and down to aid in stock and grain gambling. No one, I say, is advocating a return to that bankers' control of the price level.

Permit me, Mr. Chairman and members of the committee, to outline the mechanism of the existing Federal reserve system for the protection of the public, as compared with the preceding system, the outgrowth of the rule of the few, a system of machine-rule party government:

The interest rate on money, whereby is determined the height of the price level, is now controlled by 12 Federal reserve banks, each under the direction of a board of directors representing the banks, the public, and the Federal Reserve Board, with final control in a Government commission, the Federal Reserve Board. The wording of the law is:

"The Federal reserve bank shall have power \* \* \* (d), to establish each week, or as often as required, subject to review and determination by the Federal Reserve Board, a minimum rate of discount to be charged by such bank for each class of paper, which shall be made with a view to accommodating commerce and business."

Note the fact that this law expressly places the control of the interest rate for money in this Federal reserve system. Each week or oftener the rediscount rate for money is actually fixed by this system. In England the fixing of the bank rate is in the merchant class in the Bank of England, under the direction of the Government; while in Germany the fixing of the bank rate was directly

in the head of the Government, the chancellor; and in France the fixing of the bank rate was in the Bank of France controlled jointly by the Government and the merchant class. In our new system in this country the fixing of the bank rate for the rediscount of paper is in the Federal reserve system, one part of which is controlled by the Government through the seven men whom it places on the Federal Reserve Board.

In 1913 I was fortunate in securing Chairman Owen's approval of my plan for stabilization of the price level, which I had worked out in principle in 1896 in my 700-page book *The Money Quest* on, one of the subtitles being "Stable money." Senator Owen then convinced President Wilson and his advisers that the aim of the control of the price level by the fixing of the rediscount rate should be stability—neither inflation nor deflation. Therefore, in the bill introduced by Chairman Owen, the administration bill, there were the words: "and promoting a stable price level." The words preceding these had no technical meaning; that is, the fixing of the rediscount rate "with a view to accommodating commerce and business." Those words in the existing law left with the Government commission, the Federal Reserve Board, a discretionary power as to one of the most important lines of public policy, vested directly in Congress by constitutional provisions, as follows:

First, that the legislative power—the determining of questions of public policy—shall be in Congress; and

Second, the Constitution expressly places in Congress the power to regulate the value of money—the interest rate on money, as well as decide the other important elements concerning the monetary system.

To-day my suggestion to this Banking and Currency Committee is that there be restored the clause that was in the administration bill of 1913, namely, "and promoting a stable price level," and also add, "except as an emergency may arise making advisable an unstable price level temporarily, and that in such case the Federal Reserve Board, with the consent of the President, shall publicly announce the policy, and as soon as practicable resume the policy of promoting stability in the price level, publicly announcing the policy."

The main element in the foregoing proposal is that the operations of the Federal reserve system shall in normal times result in the maintenance of stability in the price level—stability in the purchasing power of money, with no discretionary power thereto in any part of the Federal reserve system—an instruction to the officials to keep their eyes on the index number. Just as the stokers in a boiler room keep looking at the steam gauge, so the officials in the Federal reserve system who decide as to the rediscount rate should keep their eyes on the index number of average prices at wholesale. Day by day the measurement should be taken, the net changes of the preceding day being posted on the bulletin board in each reserve bank and at the offices of each of the seven members of the Government commission, the Federal Reserve Board. By means of changes in the rediscount rate the output of credit and money each day will be such as to maintain a practically stable price level. The would-be borrowers will be at liberty to pay the rate if they believe that their enterprises can afford to pay the going rate of interest for money. Whenever the rate of discount is raised many of the would-be borrowers will drop out; and when the rediscount rate is lowered then more of the would-be borrowers will come into the market.

These principles exist, as has been shown in connection with the shifting of the interest rate by the Bank of England, the Bank of Germany, the Bank of France, and in connection with our Federal reserve system. "Equal rights to all, special privilege to none" should be the principle in our money market. The height of the interest rate on money, as distinguished from capital, should be the sole method whereby the volume of credit is expanded and contracted.

Should the cost of mining gold continue to cheapen, then an increase in the weight of the gold in the standard dollar will have to be provided for precisely as is called for in the principle embodied in the bill that is before you, introduced by Representative Goldsborough, the plan conceived by Professor Fisher.

But I am proposing a less extensive application of the Fisher plan. And at present there is no need for an authorization for a change in the weight of the gold in the standard dollar, provided the officials in the Federal reserve system are by Congress instructed to maintain stability in the purchasing power of money.

The result of such an instruction by Congress, when it shall be given, will be epoch making:

1. There will for the future be ended the cycle of expansion and contraction, stupendously harmful as compared with the forthcoming stability.

2. The money question will be removed from politics, the same as is the present-day yardstick.

3. The duties of the Federal Reserve Board will no longer be discretionary as to expansion and contraction.

All of this improvement is wholly feasible, for the history of the methods for controlling the bank rate shows that the height of the price level can be raised and lowered at will. Our great Republic is so situated that we are financially able to take the needed next step, the maintenance of stability in the price level.

Are there any questions before I pass on to the next subdivision?

Mr. STEVENSON. I want to ask you a question. It was suggested yesterday that one plan would be to concentrate all the reserve business in one great central bank and therefore change the policy absolutely. What is your view as to having, instead of 12 Federal reserve banks, 1 bank, and give it the power to raise and lower discounts so as to control credits?

Doctor SHIBLEY. I believe that 12 banks are much better than 1. When this bill was under consideration before the Senate committee I was one of the counsel for the Committee on Banking and Currency, and there was before the committee the question as to whether they should provide for the same interest rate for money for the entire country, and for a time the idea was popular, but the decision was not to compel the use of the same rate at the start, giving discretionary power to the Federal Reserve Board, and give it a trial; and now, after nine years of actual experience, you gentlemen can ascertain whether a uniform rate for money is practicable.

Mr. GOLDSBOROUGH. What is your view about it?

Doctor SHIBLEY. I have not examined the data. As a lawyer, I have learned always to investigate the facts before coming to a conclusion, and when I went into research work I found that it was absolutely essential to know all the facts before reaching a conclusion.

Mr. STEVENSON. Have you any measure or proposition to control the price level by the expansion or contraction of credits?

Doctor SHIBLEY. Yes.

Mr. STEVENSON. Therefore the Goldsborough bill, which proposes also to expand or decrease the amount of gold in dollars, is on a wholly different principle?

Doctor SHIBLEY. It is.

Mr. STEVENSON. There are two principles, one of which is the shifting of the amount of gold in the dollar?

Doctor SHIBLEY. Yes.

Mr. STEVENSON. Which would prevent to a certain extent the changes in the shifting of the amount of credits, the contraction of credits, or the expansion of credits. Do you advocate both of the principles referred to?

Doctor SHIBLEY. I do. If the Federal Reserve Board is instructed to maintain stability, the price level will go straight and have practically no deviation and there will be no call for changing the weight of the dollar excepting as the price of getting out the good becomes cheaper, so that there is too much gold, in which case the remedy will be to change the amount of gold in the dollar in possibly 10 years or 15 years or 20 years.

Mr. STEVENSON. That would depend on the supply of gold?

Doctor SHIBLEY. Exactly.

Mr. STEVENSON. Has not there been the complaint recently that it costs so much to produce gold that it curtails very much the amount produced?

Doctor SHIBLEY. I presume so, because of the rise in the cost of producing the gold.

Mr. STEVENSON. One of the gentlemen who spoke on this subject took the wholesale price and another the retail price. What is the cause of the difference of opinion?

Doctor SHIBLEY. I know of only one economist, Doctor King, who prefers to take retail prices in constructing the index number for measuring the purchasing power of money. All of the other economists have taken wholesale prices, usually in the primary markets. In each country to-day there is taking place the monthly measurement of the price level, and all are using wholesale prices. During 1884 to 1886, for three years a committee of the British Association for Advancement of Science discussed how best to construct the index number and they recommended wholesale prices.

Mr. STEAGALL. In relation to the control of the actual money, this bill will deal directly and report that as a matter of law?

Doctor SHIBLEY. That is what I am proposing.

Mr. STEAGALL. I mean, the bill before us.

Doctor SHIBLEY. It will do it indirectly. The price level will have to become unstable before the Fisher plan can operate.

Mr. STEAGALL. The control of credits will be a big factor in determining the status of prices as between deflation or inflation?

Doctor SHIBLEY. Yes.

Mr. STEAGALL. Now, which is the largest factor?

Doctor SHIBLEY. Unquestionably it is credit, and the Federal Reserve Board controls the volume of credit by the rediscount rate, and thereby controls the volume of money in circulation also.

Mr. STEAGALL. What proportionate part of that control do you assume would be exercised or affected by the law regulating the amount of gold in the dollar to meet the changing conditions in price?

Doctor SHIBLEY. The proposal by Professor Fisher in one portion of his statement is that the Federal Reserve Board shall aim to maintain stability.

Mr. STEAGALL. I understand that, but you do not get my question.

Doctor SHIBLEY. You are asking a question not in issue, because the proposal is to bring the two plans together.

Mr. STEAGALL. I understand, but I am attempting to separate them as you view them, and I am asking what proportion of control, in your judgment, would be affected by the law providing for changes in the amount of gold in the dollar as compared with an instruction to the Federal Reserve Board to maintain stability?

Doctor SHIBLEY. If you simply take the question of changing the amount of gold in the dollar and leave the board the discretionary power to put the rediscount rate up and down, back and forth, you will have probably the same instability as now, endeavoring to correct it indirectly by changing the weight of the gold in the dollar; but Professor Fisher's idea is that the two plans should constitute one system, and Congressman Goldsborough suggested it in his statement yesterday.

Mr. STEAGALL. Your answer then, I believe, is that without the exercise of control by the Federal Reserve Board we will be practically where we are now?

Doctor SHIBLEY. Yes; except as each month there is a change in the weight of gold in the standard dollar.

Mr. STEAGALL. In other words, the regulation of the dollar to meet the changes in the price index would not accomplish stability?

Doctor SHIBLEY. No; it would not accomplish stability.

Mr. STEAGALL. So, after all, we are remanded to the establishment of some agency, or the placing of the power in the Federal Reserve Board, to deal effectively with this question?

Doctor SHIBLEY. I would say that the Federal Reserve Board has the power now, but it is a discretionary power which it has exercised in a way that has brought on instability.

Mr. STEAGALL. The point I have in mind is this: I am in favor of a government of laws and not a government of men, in so far as that is possible. I have every sympathy with the purpose of this legislation, and with a great many of the views you have expressed. I have been for a long time a believer in the quantity theory of money, and there is one view of public questions that I have had always, which I have never changed in my mind on it since the nineties; I shrink from the thought of placing so much power in the hands of men. If it is possible, I wish to accomplish a result by writing the whole proposition into a law, where you know to-day and to-morrow and always what a man's rights are, and I do not say that we are not big enough as a government to put this thing over and to set up some agency or instrumentality that can be trusted to put into execution sound and impartial judgment as to these matters; but I want it in the law if we can put it there. That is why I am attempting to differentiate between the extent of control covered by legislation as to what shall be the relation of a dollar to the price index, and the amount of control that will eventually have to be resorted to on the part of the Federal Reserve Board, a power lodged in its personnel.

Doctor SHIBLEY. May I answer the question the way in which Professor Fisher, I think, had in mind, as brought out in his testimony? By changing

the weight of the gold in the dollar the number of dollars in the gold reserve will be changed and the amount of credit which can be built up on that gold reserve will be changed. But that of itself will not force the Federal Reserve Board to change its rediscount rate until the limitation fixed by the gold reserve is approached. I think that clears up your question in part.

Mr. STEAGALL. In part; but not wholly. I have not been one who has been harsh in criticism of the Federal Reserve Board, but I do think they have already an enormous amount of power to be exercised by a small number of men.

(Thereupon, at 12.15 o'clock p. m., a recess was taken until to-morrow, Thursday, December 21, 1922, at 10.30 o'clock a. m.)

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COMMITTEE ON BANKING AND CURRENCY,  
HOUSE OF REPRESENTATIVES,  
*Thursday, December 21, 1922.*

The committee met at 10.30 o'clock a. m., Hon. Louis T. McFadden (chairman) presiding.

The CHAIRMAN. The committee will come to order. You may now continue your statement, Doctor Shibley.

**STATEMENT OF DR. GEORGE H. SHIBLEY—Continued.**

Doctor SHIBLEY. Mr. Chairman and members of the committee, when adjournment took place yesterday there was being considered the probable operations of Mr. Goldsborough's bill, should it become law.

There are several viewpoints; for example, Is the Fisher plan to be supplemented by my plan?

You should know that when Mr. Goldsborough drafted his bill, neither he nor Professor Fisher had in mind the plan which I am presenting. I wrote to Mr. Goldsborough, calling his attention to my plan, and he forwarded the letter to Professor Fisher, who wrote me, asking for details as to the administration bill of 1913—the clause “and promoting stability in the price level.” I replied, and then Professor Fisher asked me to be present at this hearing and describe the plan, and Mr. Goldsborough wrote me, asking that I appear before you.

Professor Fisher, in describing the probable effect of his plan should it be placed in operation, asked for the cooperation of the Federal reserve system in maintaining stability in the price level. My plan is that Congress shall instruct the officials in the Federal reserve system to use their power to promote stability. Two days ago Mr. Goldsborough placed in the hearings a suggestion to apply my plan. Therefore, I, in my statement of yesterday, went on the assumption that the two plans should be used as one system. Professor Fisher stated that two legs to a stool are better than one leg. The ideal is stability and all of the influence possible should be applied.

However, my plan, which was placed in the administration bill in 1913, is the direct method for the attainment of stability in the price level, and possibly at no time will it be necessary to change the weight of the gold in the standard dollar. Should the time come, then, the Fisher plan tells how to meet the situation. Therefore, to clear up the situation as much as possible, I, from now on, will present my plan as being sufficient in itself for some years.

I wish to add a further detail as to the meaning of a stable price level. That term is to be construed as providing that the price level shall rise sufficiently from harvest time until the next harvest time to allow for the cost of carrying the crops. It costs money to carry the crops and therefore the price level should rise just a little during the 12 months, followed by a drop at the time that the new crops come in. This is a detail which has not been overlooked. Twenty-three years ago I paid for measuring the price level in this country, so I have given the subject much study.

In the Bureau of Economic Research, of which I was then a member, my department was money and banking, and I needed to know just how our price level was behaving. Our Government was not measuring the price level, and no private individual was doing it, and so I did it. I paid for it. The work was done under the direction of Prof. John R. Commons, a fellow member of the Bureau of Economic Research. The bureau published the data and later Professor Commons secured its further publication in the final report of the United States Industrial Commission in 1901. That data came to the

attention of the Director of the Labor Bureau of the United States Government, Dr. Carroll D. Wright, who, as the head of the Government bureau, started making current measurements of the average of wholesale prices and regularly published them; and then the Labor Bureau measured the average of prices for the earlier years. Next, the Canadian Government's bureau began the measurement of the price level; and then the British Government's labor bureau did the same for its area, until now in each of the leading nations the Government frequently measures the height of the price level. Measurement of the price level has become an established function of government. And wage disputes are settled by applying the official measurement as to the purchasing power of money.

As to just how the index number should be constructed, there are vitally important details in my book published in 1896, *The Money Question*.

Are there any questions before I pass to the next subdivision?

Mr. GOLDSBOROUGH. Assuming that the Fisher plan was in vogue, and assuming that at the end of two months' period the price level should rise 1 per cent, then under his plan two things would happen: The Bureau of the Mint would increase the weight of the gold dollar 1 per cent, and the Federal Reserve Board, if the Federal Reserve Board act were amended as suggested, would immediately have notice that it was their duty to watch the discount rate in order to assist the price level in coming back to 100. Is not that the way the two plans would work together?

Doctor SHIBLEY. Yes, together; but I believe that under the one plan amending the Federal reserve act so that the Reserve Board shall be instructed to maintain a stable price level, they would do so, and the price level would be kept stable year after year without any changes in the weight of the gold dollar. If the time should come that a change in the weight of the dollar should become necessary, when that time comes the conditions should then be faced.

Mr. GOLDSBOROUGH. But what I have suggested is the way the two plans would work if they were adopted, and the Federal reserve act were amended so as to place upon the Federal Reserve Board the responsibility of accommodating and stabilizing agriculture, commerce, and business, and preventing deflation and inflation. It is your judgment that is the way the system would work?

Doctor SHIBLEY. Oh, yes; it certainly would operate splendidly.

Mr. GOLDSBOROUGH. That is the idea I had in mind.

Doctor SHIBLEY. But I believe there should be placed in your bill an amendment corresponding with that which I am suggesting, namely, that there should be placed in the Federal Reserve Board a discretionary power, in case of an emergency, so that they can change the stable price level by inflation or deflation, whichever is necessary—that is, somewhere there must be lodged a power, when an emergency arises, to do whatever is necessary. You can not wait for Congress to assemble before taking action.

Mr. GOLDSBOROUGH. You think the discretion should be left with the Federal Reserve Board?

Doctor SHIBLEY. Subject to the approval of the President.

The CHAIRMAN. You do not consider that would be too much authority to lodge in the hands of men who control the financial system?

Doctor SHIBLEY. They at the present time are exercising it without any check whatever.

The CHAIRMAN. It is your position that the Federal Reserve Board should control the price level?

Doctor SHIBLEY. My answer is that the control of the price level is by the Constitution vested in Congress, which has delegated the control to the Federal Reserve Board.

The CHAIRMAN. Would you explain just how the operations of the Federal Reserve Board are doing that?

Doctor SHIBLEY. A majority in the Federal Reserve Board have complete discretionary power to decide where the rediscount rate for money shall be placed from time to time, thereby being clothed with power to cause inflation or deflation, as in their judgment is thought best. And the board has decided at different times to permit inflation or cause deflation, with advantage to the country in the main, I believe, as I will explain presently.

The proposal in the 1913 administration bill was to instruct the Federal reserve officials to so place the rediscount rate as to "promote a stable price level." Had that instruction been incorporated in the law, it would have

taken away the tremendous amount of discretionary power as to inflation and deflation which now is vested in the Federal Reserve Board. In that bill of 1913 the members of the board were instructed to keep their eyes fixed on the index number—the height of the price level.

But that plan for stabilization was new at that time and it is new to-day. In 1913 the country was not ready for it, but to-day the conditions for its adoption are favorable, there being great dissatisfaction with the way the discretionary power of the Federal Reserve Board has been exercised. Also, a further inflation at this time would be used by the business interests to put up their prices, with inability by the farmers to get together and raise their prices. For example, during March to August, inclusive, this year the business interests raised their prices, and the result was a drop in the purchasing power of farm products from 76 to 64, or a drop of one-sixth, as measured in prices other than farm products. (Department of Agriculture.) Therefore to-day the need is for stabilization of the average of prices—the prevention of inflation and the prevention of deflation.

In the words of the Department of Agriculture in its October bulletin, *The Agricultural Situation*, in describing the threatened inflation and the desperate condition of the farmers: "The farmers may be compared to a 6-foot man in 5½ feet of water and it is beginning to rain."

The need is for the ending of monopolization of commodity prices by the business interests and by the trade-unionists, as I have described in detail at a hearing before the Senate Agricultural Committee on week ago.

We have outlined in a broad way the mechanism whereby our National Government can take the needed next step in perfecting our monetary and banking system.

The self-interest of all the industrial groups is going to result in general consent that the price level shall thus be kept stable. It will benefit everyone. This can be seen by noting the fact that the maintenance of a stable price level means the ending of the cycles of rising and falling prices—means the ending of the cycles of rising prices and stimulated business, followed by falling prices and unemployment, loss of profits, and bankruptcies.

The CHIRMAN. Right there, what about the law of supply and demand. Would not that plan actually repeal the natural law of supply and demand?

Doctor SHIBLEY. No; not as to commodity prices. I am speaking of the supply and demand for money and credit, which affect the general price level, and that will leave the prices of commodities among themselves to shift in accordance with the supply and demand of each commodity. This becomes clear by bearing in mind the existence of the price level, and also that the prices of the particular commodities go up and down among themselves in accordance with the supply and demand for each.

The average of prices, the price level, has been likened to the surface of a lake the height of which can be raised and lowered, and that on the surface of this lake there are large numbers of waves raising and lowering, which are similar to the raising and lowering of the prices of individual commodities.

In speaking of the supply of and the demand for money and the supply of and the demand for credit I am considering the factors which affect the price level as well as affect in a slight degree the price of each commodity. The issue before us is, How shall Congress provide for the control of the factors which affect the price level?

The answer is that Congress has placed in a Government agency the Federal reserve system, the control of the rediscount rate, under instruction to adjust the height to accommodate commerce and business and to maintain a gold reserve of specified proportions.

These instructions leave it discretionary with the Government commission, the officials on the Federal Reserve Board, to place the rediscount rate wherever they choose provided they keep on hand the minimum requirement as to gold reserve. The words "accommodate commerce and business" have no technical meanings, whereas there is a technical meaning in the words "promote a stable price level."

I am proposing that you gentlemen of this committee shall report to the House a recommendation that the Federal reserve act be amended by incorporating the words "promote a stable price level" and also add the words "except as an emergency may arise making advisable an unstable price level temporarily; and that in such case the Federal Reserve Board, with the consent of the President, shall publicly announce the policy decided upon and as

soon as practicable resume the policy of stability in the price level, publicly announcing the policy."

No new principle is involved except the maintenance of a stable price level. Yesterday I pointed out that in Europe when the countries were on the gold standard the control of the height of the price level in England was in the Bank of England, subject to the direction of the Government; in Germany the control was directly in the Chancellor, the Premier; and in France the control of the bank rate was in the Bank of France and under the joint control of the Government and the merchant class. In none of these countries did they permit the money lenders, the bankers, to decide the day-by-day interest rate for cash. The Government itself supervised that vital factor—the height of the interest rate for cash—thereby determining how much gold should be kept within the country. Gold was both a standard of value and a weapon of war.

That European system was the ideal for them, for at that time it was the best that could be attained in these countries. Now, however, the time has arrived when the United States, a giant in every way and in possession of two-thirds of the world's gold, can and should take the needed next step in financial development, instruct the Federal reserve officials to maintain the rediscount rate at such a height as to promote a stable price level, except in case of an emergency calling for an unstable price level, and then, with the consent of the President, to announce publicly the new policy, but to return to stability as soon as practicable, announcing publicly each change of policy.

The splendid results from such a policy I have already stated.

The development of monetary science is going to result in a stable price level. Just as the scourge of yellow fever has been banished by science, so the cycles of hard times and good times caused by the cycle of rising prices and falling prices are to be ended.

Mr. STEVENSON. Do you not think that is an unfortunate statement? Do you think anybody in this country is going to submit to an abolition of a cycle of good times?

Doctor SHIBLEY. And hard times.

Mr. STEVENSON. I do not see why you would say hard times and good times. You want to get rid of hard times if you can, and is not the very thing we are striving after good times? Of course, that is your statement, but I should think you would not want to abolish good times.

Doctor SHIBLEY. Then I change the form of my statement and say the cycle of hard times followed by temporary good times, and say we are to experience permanent good times. We are going to have permanent prosperity, and a prosperity way beyond anything that the world has ever experienced, because when men can figure ahead and know what the purchasing power of money is going to be and not suffer from these jumps and bankruptcies it will be an entirely different world and the output will be tremendously large.

I will outline the main steps in the development of monetary science in recent years.

Some 50 years ago there was invented a system for the measurement of the purchasing power of money—the index number of average prices at wholesale. That was an epoch-making invention—the measurement of the purchasing power of money. Then individuals measured the British price level going back as far as 1782. Also there were studies as to how the index number should be constructed, but it was found that the various systems are quite similar in their results. Then one government after another began to measure the price level, until to-day nearly all of the leading nations are doing so. And on all sides there is an admission that the idea in normal times is stability in the price level—stability in the purchasing power of money. The next step is for a strong nation, as is the United States, to instruct that the control of the price level, a government function, shall be in connection with an instruction to maintain a practically stable price level, thereby to end the cycle of falling and rising prices, and do justice to all who have contracts extending through many years; for example, life insurance.

The CHAIRMAN. Do you consider the control of the interest rate sufficient to regulate the price level?

Doctor SHIBLEY. Entirely so, in connection with an elastic volume of money. Those two factors in conjunction accomplish the result, as the history of England shows, and the history of the Bank of France, and the history of Germany and of this country.

The CHAIRMAN. Do you consider that we have a sufficient amount of elastic money now?

Doctor SHIBLEY. Yes. We have so much gold that there is no question about its sufficiency; and I presume that the cost of mining gold will be lessened by means of inventions the same as it has been in the past.

The CHAIRMAN. You do not think there is any other Government agency that should assist in stabilizing the price level?

Doctor SHIBLEY. No.

The CHAIRMAN. No other agency would be needed except the interest rate as governed by the Federal Reserve Board?

Doctor SHIBLEY. That will do it completely. That was used in the Bank of England in England and by the Bank of France in France and by the chancellor in Germany. If the volume of gold was too large, they lowered the bank rate and if the volume of gold shrank too much they raised the bank rate, and more goods were sold abroad and gold was imported. That is so with our Federal reserve system. The only question is, Shall the officials of our Federal reserve system be instructed to maintain stability, or shall they be left with discretionary power?

The CHAIRMAN. Suppose we have an overproduction of cotton or wheat in this country, what effect would the stabilization of the price level have on the markets of those products?

Doctor SHIBLEY. It would promote the marketing of the crops. The price level would be kept stable, and then the price of wheat would rise and fall in conformity with the supply of and the demand for wheat. The key to an understanding of this whole problem is to distinguish between the price level and particular prices. The price level is the average of prices. It is charted, and when that zigzag line of the price level becomes impressed on one's mind there will be understood the distinction between the price level and particular prices.

Mr. GOLDSBOROUGH. The total volume of general commodities does not vary but very little from year to year, does it? I think that answers the chairman's inquiry.

Mr. STEVENSON. Then what are we figuring on this change for?

Mr. GOLDSBOROUGH. The general quantity of production of commodities does not change from year to year?

Doctor SHIBLEY. Not to any great extent, and we are only speaking of controlling the average of prices.

As I was saying, there is need to end the cycle of rising and falling prices. This cycle of rising and falling prices is similar to the stationary engine before there was invented the steam governor. The steam governor is a pair of weights revolving rapidly, and the weights spread out whenever a high speed is attained, thereby shutting off some of the intake for the steam, proportioned to the amount of work that is being done. Our Federal reserve system should be constructed similarly. Congress should direct that the Federal reserve banks and of the Government commission, the Federal Reserve Board, should so control the interest rate for money as to promote a practically stable price level, except should an emergency occur necessitating the temporary setting aside of stability, in which case the Federal Reserve Board, with the consent of the President, should publicly announce the change of policy and publicly announce each further change of policy.

That general system will take from the Federal Reserve Board its existing discretionary power as to deflation and inflation. Just as a fireman keeps watch of the steam gauge, so the Government commission, the Federal Reserve Board, will be instructed to keep its eyes on the index number. Thus the Federal Reserve Board will be relieved of its existing discretionary power. That discretionary power is power to determine a question of public policy, a power which the Constitution has vested in the Congress of the United States; also, another portion of the Constitution places in Congress the power to regulate the value of money, which is partly achieved by fixing from day to day the interest rate on money.

The proposed system for stability when installed will completely end the cycle of rising prices and falling prices, to the great benefit of everyone. Economists have all been looking forward to that great day.

But ahead of us is the necessary campaign of education. We hope that this committee will report the facts and approve the stabilization of the price level—the purchasing power of money.

There is a tactical point here which I wish to point out: The proposed amendment of the Federal reserve act, if adopted, will end a disagreeable and rather dangerous political dispute. Members of the two Houses and the administration are looking ahead to the next primary election and the next general election, and the candidates who declare for a principle of justice in connection with the question of inflation and deflation and stand for equal rights to loans, and then champion a workable plan for attaining these ends, will smooth their political pathway. The masses of the voters are very properly suspicious, and the statesman who stands for principles of justice in connection with this intricate money question will be able to successfully face his constituents. Scientific developments have been taking place which the candidates for election can make use of.

Mr. MACGREGOR. Are not all politicians trying to get justice for the people?

Doctor SHIBLEY. Certainly; that is what I suppose; that is the ideal, and out of the conflicting viewpoints comes a middle course.

Next, a very broad generalization. When the United States shall maintain a practically stable price level it will mean that the gold standard will become a practically stable price level throughout all of the countries using it. The gold-using countries will all have the same height of average prices in the main, due to the export of gold from a country should its prices for commodities become higher than the price level in the other gold-using countries. Therefore the United States, by helping herself by installing a stable price level, will be doing so for all of the other gold-using countries.

The CHAIRMAN. Referring again to the question of the fixing of interest rates, independently of other countries, do you think the domestic interest rate can arbitrarily be sustained without regard to the interest rate prevailing in England and France and other nations, without affecting the international flow of money to the detriment of our country?

Doctor SHIBLEY. I am glad you asked that question, which leads to this distinction, the distinction between the interest rate for money and the interest rate on capital. Those are two entirely different things. A change in the interest rate for money causes a change in the price level, whereas the interest rate on capital, on investments, is gauged by other factors. In each country the interest rate on money, whereby the price level is gauged, is fixed by an institution—in England by the Bank of England; in France by the Bank of France; in Germany by the Bank of Germany—so that the rate can be put up or down as the country's welfare requires. In England whenever their gold supply began to run too low, the decision being in the Government, the Bank of England raised the bank rate, which resulted in the lowering of the average prices at wholesale, which resulted in the selling of more goods for export, tending to bring in gold; and vice versa, the lowering of the bank rate resulted in a rise in the average of prices at wholesale, tending to diminish the imports of gold.

Mr. STRONG. What is the difference in the interest rate on capital and the interest rate on money?

Doctor SHIBLEY. It is this: Whenever, for example, there has been a panic for money the interest rate went up, possibly to 1 per cent a day, whereas the interest rate on capital, such as bonds, did not rise, and the interest rate on commercial loans for a considerable time did not rise, but the interest rate for money fluctuated according to the strength of the immediate demand for money.

Mr. STEVENSON. Is not that illustrated by this: We have in the income tax law—and the Supreme Court has sustained it—a provision that a corporation or person is entitled to such a rate on capital as will produce 6 per cent on the amount invested in a business. That is the interest rate on capital invested in business. A man goes down the street and wants a thousand dollars for 90 days, and it is a question of what the actual rate is for money. Is not that the difference?

Doctor SHIBLEY. Exactly.

The CHAIRMAN. You suggest that there should be lodged, as there is already lodged, the power in the Federal Reserve Board to fix the rate of interest on money—the rediscount rate. You suggest that the board should be further supervised, and I was wondering whether in our interrelation with other countries it would affect our situation with other countries if we arbitrarily changed the rate of interest on money without consulting with other countries.

Doctor SHIBLEY. We always have changed the rate of interest on money with regard to the proper height of our price level.

The CHAIRMAN. Do you think we should act in unison with England and France and other countries or should we act entirely as affects our own situation?

Doctor SHIBLEY. As affects our own situation, and that will be to adjust our price level to the ideal which Congress shall adopt.

Mr. STEVENSON. In this country it is different from France and England and Germany. We have 48 States, and they practically all have a maximum rate of interest that can be charged for money. In some States it is different from others. Do you suggest that this governmental agency you are proposing should have the power to shift the interest rate, no matter how high it goes, regardless of State penalties?

Doctor SHIBLEY. Most decidedly.

Mr. STEVENSON. You would have them override the maximum provided by State legislatures?

Doctor SHIBLEY. If necessary, it would be done. It is done now through the payment of a commission.

The CHAIRMAN. The regular interest rate on money throughout the country is usually placed at the current rate in New York City, and that rate on money goes up and down, which is quite similar to the system in England, France, and Germany. But this fluctuating money rate is different from the interest rate on long-time securities. In other words, along the line Mr. Stevenson mentioned the rates on fixed investments or long-time securities are stable; those, of course, can not be changed in a short period of time, as you suggest might be done in changing the rates by the Federal Reserve Board?

Doctor SHIBLEY. Exactly.

The CHAIRMAN. You are simply going to deal with the bank rate as we know it in New York?

Doctor SHIBLEY. That is, the rate in the principal cities where the 12 reserve banks are.

The CHAIRMAN. And that is the current rate for money on short-time loans?

Doctor SHIBLEY. Yes.

Mr. STRONG. You spoke of changing the content of the gold in the dollar, which I understand to be the sole change recommended by the gentlemen that have preceded you. What will result if that is done, as regards the dollars already issued?

Doctor SHIBLEY. I have not been giving attention to that, and I would not attempt to answer it.

Mr. MACGREGOR. The provisions of the bill say they are to be redeemed.

Mr. STRONG. Then we might have to change the entire circulation of our gold dollars every three, or four, or six months?

Doctor SHIBLEY. But the gold in circulation is to be impounded so you will not use gold, but warehouse certificates.

The countries which have unfortunately lost their gold prices, will, when we maintain a stable price level, select a par of exchange and attempt to maintain it, thereby maintaining for themselves a stable price level. In fact, when we attain that ideal monetary standard, stable money, the other nations of the world will all attempt to establish a fixed par of exchange with us, thereby benefiting their people and ours.

Then the gold standard of prices can easily be installed in the present-day paper-money standard countries. All that will be required will be to adjust the number of grains of gold in their monetary unit to the value of gold when gauged by their paper-money prices.

I now wish to lay before you very briefly the history of the main policies of the Federal Reserve Board since the installation of the system. I have a new line of data.

Some eight months after the signing of the Federal reserve bill there burst forth the dreadful World War. In this country there existed a possibility for great expansion of credit and cash for new enterprises. Gradually there set in an era of rising prices, and later when we entered the war there was a vast expansion of credit and cash, which enabled the industrial world to enlarge the vital industries.

And still further advantages to the Nation and to all mankind ensued: The rising price level resulted in a higher cost of living, which forced the people to get along with less and less commodities, leaving more and more for the rest of the democracies who were fighting for their very existence.

Also, the business interests received very large profits, most of which were at once used in production, whereas had the people been able to purchase their accustomed supply of commodities little of it would have been saved up for use in production.

Fourth. The Government by means of taxation took for the use of the Nation much of that which the business men received in excess profits; that is, a law of Congress provided that 80 per cent of the excess profits of the business interests should go into the public coffers.

Those fourfold advantages came to this country and to mankind through the rising price level. It was well that Congress in the year 1913 did not instruct the Government commission to maintain a stable price level. Of course, that law might have been repealed, but not easily under our legislative system. We act much more slowly than does parliamentary government.

Furthermore, after the close of the World War the existence of a discretionary policy by the Federal Reserve Board as to the height of the price level has been of stupendous importance twice, at least:

First, shortly after the close of the World War. When the war closed the outlook was for a big drop in the price level and for three months the trend was in that direction, decidedly. In January, 1919, the shrinkage in the volume of money in circulation was 5 per cent—5 per cent shrinkage in one month, at the rate of 60 per cent a year.

The CHAIRMAN. What was the cause of that 5 per cent reduction?

Doctor SHIBLEY. The business men looked for hard times, the slacking up of business, and so they paid back some of their loans. Five per cent of the total volume of money went out of circulation. The business men did not want it.

But in February, three months after falling prices had set in, the stock market ceased falling and began to advance. In a few days that stock market was considerably higher. The volume of credit and cash began to expand; prices for products had ceased falling and were rising.

The Federal Reserve Board did not make any announcement to the public that a change of policy from deflation to inflation had been decided upon, but events proved that such was the case.

The CHAIRMAN. They had taken that decisive step, had they?

Doctor SHIBLEY. Evidently, from what occurred.

The CHAIRMAN. What was the date of that?

Doctor SHIBLEY. That was in February, 1919.

The Advisory Bankers' Board had met with the Federal Reserve Board and almost immediately, as history shows, the stock buying on the exchanges began. Some of those on the inside doubtless reaped large profits.

Gentlemen, I suggest that in place of this discretionary power of the board and the secret changing of its policy, that this board should be instructed by the policy-determining department of the Government to publicly announce its policy whenever there is a change.

The CHAIRMAN. You are suggesting that immediately after that contraction of 5 per cent the advisory counsel of the Federal Reserve Board met with the board, which had adopted a change of policy?

Doctor SHIBLEY. Yes. The Advisory Bankers' Board met with the Federal Reserve Board and learned of its change of policy.

The CHAIRMAN. And because of that knowledge there began immediately an increase of speculative transactions on the stock exchange?

Doctor SHIBLEY. Events prove that such was the case.

The CHAIRMAN. Was that the time when the Federal advisory counsel sent out a word of caution to the banks generally?

Doctor SHIBLEY. I think not.

The CHAIRMAN. That was the following year—in May, 1920?

Doctor SHIBLEY. Yes; that was the date.

The CHAIRMAN. They sent out a word of caution and asked the banks to call their loans, or it resulted in that. This incident that you are speaking of was a year before that time?

Doctor SHIBLEY. Yes.

Mr. STEVENSON. In other words, it was just before the beginning of the floating of the Victory loan, which was offered in the spring of 1919?

Doctor SHIBLEY. Yes.

Mr. STEVENSON. And that was the reason for it?

Doctor SHIBLEY. That may have been the reason in the minds of those men, but it had a far greater effect.

Mr. STEVENSON. I happen to know that it was the reason for it.

The CHAIRMAN. That is assuming a domination of the Treasury over the action of the Federal Reserve Board.

Mr. STEVENSON. It was a cooperative arrangement between them; that is what happened. I know that.

Doctor SHIBLEY. I ask the question, What were the reasons for the change of policy by the Government commission?

Subsequent events show that the change of policy resulted in the stimulation of industry, so that in place of falling prices for the immediate future and losses by the business interests, which would have caused much discharging of hands and inability by our Government to disband its millions of citizen soldiers; in place of this there were rising prices and a growing demand for workmen, so that the Government was able to disband its millions of soldiers and get them placed at production, thereby to help repair the ravages of war. We exported billions of dollars' worth of raw materials to the war-torn countries.

Furthermore, the rising prices forced our people to get along with less and less of the commodities, leaving more for export abroad; and the huge profits by our business interests enabled the Government to take 80 per cent of the excess profits, and such of the profits as remained with the business interests were used to produce more commodities, while the people, had they experienced stable prices, would have consumed much more, refusing to save up for the emergency.

And stupendously more important than these advantages to mankind from the events which we have just narrated was the fact that the era of rising prices in this country, February, 1919, and for the next year, in place of that which would have been falling prices and discharge of hands and an inability by our Government to disband our millions of young men, saved our civilization from overthrow by the advocates of Soviet Government—the rule of industrial councils, the trade-unions, to come into power by starting a big strike and merging it into a general strike, such as was actually started at Seattle in February, 1919, and which tied up Seattle for five days and spread to Portland and San Francisco; and in June tied up Winnipeg for six long weeks, with attempts elsewhere in Canada and in the United States to start the general strike. It had succeeded in Russia, Hungary, and Bavaria, with fighting between the trade-unionists and the Socialist Governments on the Continent. On the Continent the existence of universal suffrage and proportional representation placed the Socialist leaders in power as the Government, and they withstood the demands for Trade Union Rule. In the United States by inflation that was brought about by the Government commission saved our civilization.

As it was, the climax of the movement for trade-union rule in this country and abroad culminated during the spring and summer of 1920. The American Federation of Labor at its annual meeting, at Toronto, June, 1920, declared for trade-union rule for the railways—the Plumb plan. The vote was four-fifths, and tremendous excitement occurred. I was there and witnessed it. The coal-miners' union had declared for the system for the coal-mining industry, and each trade-union in a basic industry planned to become its ruling power. In short, the American Federation of Labor to become the Government—National, State, and local, the soviet system.

Mr. MACGREGOR. That is true now, is it not?

Doctor SHIBLEY. No; a change of policy was voted at the last annual meeting of the American Federation of Labor, at Cincinnati.

Mr. MACGREGOR. The coal miners still want the Plumb plan. Last session, a year ago, they stated before committees of Congress that one of their cardinal principles was the nationalization of coal mines.

Mr. STEVENSON. There is a very decided difference between the nationalization of coal mines and sovietization of coal mines.

Mr. MACGREGOR. Not much.

Doctor SHIBLEY. At the time of the vote by the American Federation for the Plumb plan for the railroads there existed the indirect strike on the railroads and the tying up of traffic, very largely.

And while this was at its height, with a general strike in Winnipeg and attempts to spread the general strike in this country, in Europe the Russian Red army invested Warsaw. In London the trade-unionist committee for direct action functioned, openly serving notice on Parliament. A cablegram printed in this country from Colonel House in London stated that dark as had been the outlook for civilization during the World War the situation then, in 1920, was much worse. Colonel House chided the United States for not

staying with the Allies, and the statement continued, in substance, "But they have the satisfaction of knowing that if they fall, the United States will also fall!"

Mr. Chairman and gentlemen of this committee, I have described what took place, I have told the awful story of that which took place, but the movement for the dictatorship of the propertyless did not succeed, except in Bavaria, and Hungary, outside of Russia. I ask, what would have been the outcome in this country and Europe, in your opinion, had the Government commission in charge of the price level in this country have refused to stop the falling prices and disorganization of industry in 1919?

I assert that the decision by the Federal Reserve Board during February, 1919, to reverse its policy and bring on an era of rising prices and business stimulation actually saved mankind from world-wide trade-union rule.

Later, in 1920, when the movement for trade-union rule was at its height and the radical wage-worker leaders in this country were able to get work whenever they were discharged, because of the stimulated industry, our Government commission, the Federal Reserve Board, led in a movement which quickly contracted the volume of credits, resulting in the discharge of hands, and then with the unemployed standing about there was less and less likelihood of success in the plans for a general strike.

Mr. STEVENSON. You are commending the fact that they stopped the deflation and increased prices. Now, all the advocates of this measure who have appeared before us heretofore have been crying out against the increase of prices as in comparison with the dollar in gold. We have had the pathetic story of the servant girl who put \$100 in the bank in 1896 and took out \$200, which was not worth as much when she took it out as the \$100 she put in at first, and we have had the story of the man who took out \$5,000 life insurance in 1893, which was not worth as much when the money was collected on the policy, and so on. They said this bill was for the purpose of correcting that. I understand you to be commending the fact that they put prices up?

Doctor SHIBLEY. I will answer that. When there is a hard fought war it should be accompanied by rising prices. It forces the people to save—the high cost of living forces the people to save; and the business interests receive large profits which are used in production; and therefore in my suggestions for the maintenance of a stable price level I provide that in an emergency the Federal Reserve Board, with the consent of the President, may change the policy.

Mr. GOLDSBOROUGH. You mean an emergency such as war?

Doctor SHIBLEY. Yes, sir.

The CHAIRMAN. Is that the only situation that might arise?

Doctor SHIBLEY. Oh, no.

Mr. STEAGALL. If I understand your theory, or the theory of those who advocate this bill, it is that this legislation would give us a proportionate relation between the cost of commodities and the gold dollar, whereby fluctuations to a certain extent would be restricted and prevented, and it would give the Federal Reserve Board a daily index number by which they could deal with the situation.

Doctor SHIBLEY. Yes. I am merely referring to the fact that there might be an emergency when the general welfare might call for a rising price level.

Mr. STEVENSON. Another question that has bothered me is this: Where are you going to start now? This bill provides that you start on January 8, 1924, I believe. Suppose at that time cotton is away up and wheat is away down and corn is below the cost of production?

Mr. STRONG. We do not want to start unless wheat and cotton and everything else is up.

Mr. STEVENSON. How are you going to get at that?

Doctor SHIBLEY. We are speaking about the price level.

Mr. STEVENSON. Yes.

Doctor SHIBLEY. That is now at 160 or thereabout, as compared with 100 for 1913.

Mr. STEVENSON. Yes.

Doctor SHIBLEY. And when the price level is stabilized the increased prosperity will increase the demand for cotton and corn.

Mr. STEVENSON. If you start now with 160, as compared with 1913, the proposition is to maintain it at 160?

Doctor SHIBLEY. Yes.

Mr. GOLDSBOROUGH. Call it 100, but let it remain at 160.

Mr. STEVENSON. In other words, your price level will be higher than in 1913?

Doctor SHIBLEY. Yes.

Mr. STEVENSON. What are the consumers going to say about that? They are clamoring for everything to go down.

Doctor SHIBLEY. We are speaking about the average of prices, and not the particular prices.

Mr. STEVENSON. The average is made up of the whole body, and throughout the whole body somebody pays something for everything. They are all asking that what they buy be brought down. What is going to happen, as far as they are concerned?

Doctor SHIBLEY. We are speaking about the average of prices which should be kept stable, not about particular prices. The particular prices of to-day are affected by monopolies, which must be terminated.

Mr. STEAGALL. I want to ask you about some things which I think are important at this point. Would anybody be satisfied with strictly arbitrarily retained price levels?

Doctor SHIBLEY. They would be delighted.

Mr. STEAGALL. Would not the farmer be inclined to say: "My wheat would go up if it were not that we have got adverse legislation. We have got a short crop and would have big prices."

Mr. GOLDSBOROUGH. It would not affect that adversely.

Mr. STEAGALL. What do you mean?

Doctor SHIBLEY. We are speaking of the need for maintaining a stable average of prices for the promotion of everyone's prosperity. The price of wheat would continue to go up and down as compared to the other commodities, the result of the changes in the supply and the demand for commodities.

Mr. STEAGALL. Not altogether.

Doctor SHIBLEY. In connection with the average of prices, a stable price level will increase the demand for wheat.

Mr. STEAGALL. Probably that is true, and that might increase the complaint of the producers.

Doctor SHIBLEY. Complaint about good times?

Mr. STEAGALL. No; not about good times. They might say "The demand is increasing and we would get more if the Government would let us alone." Our people are more ready to complain about what they regard as governmental interference than they are about anything else. Take the discontent that has sprung up in this country in recent years. It has not grown any more out of actual conditions than it has out of the thought that somebody was to be improperly and unfairly discriminated against.

Doctor SHIBLEY. And this proposed stabilization when adopted will remove that as to the money question?

Mr. STEAGALL. I am not absolutely sure of that. As I understood you to say yesterday, the passage of this bill establishing these index lists as compared with the gold dollar would not of itself accomplish stability.

Doctor SHIBLEY. That is true, I believe, of the Fisher plan. I am proposing another plan.

Mr. STEAGALL. You are proposing a thing that I am getting to now. In order to bring that about you are going to clothe the Federal Reserve Board, or some other agency or instrumentality of the Government, no matter what you call it, with power to restrict or to enlarge the supply of credit at any time that in their judgment it is wise and proper to do so in order to accomplish stability?

Doctor SHIBLEY. I think you have not stated the situation quite as it is. At present the Federal reserve officials are instructed to fix the rediscount rate each week. Now, what should be the criterion in doing so? They have a discretionary power to put it up or down. When they are instructed to keep their eyes on the index number they will maintain stability.

Mr. STEAGALL. If that is true, there is nothing in the suggestion I am making; but the inquiry I am undertaking to make is this, that whenever you put in the hands of men the power that is contemplated by your suggestion to accomplish stability, I do not care how well it works, your citizen out yonder is always jealous of that power in the hands of those few men.

Mr. MACGREGOR. Under this plan they would have less power than they have now.

Mr. STEAGALL. Possibly that is true, and I do not mean to criticize the Federal Reserve Board, although they have made some mistakes, and I do not know of any folks who did not during the war; but I have never been able to

answer the argument that the greater class of men object to placing power in the hands of a few men.

Mr. MACGREGOR. But here they would have less power.

Mr. STEAGALL. That is to be determined.

Mr. MACGREGOR. I think the Federal Reserve Board has too much power and is now exercising too much power.

Doctor SHIBLEY. We agree with you.

Mr. STEAGALL. If we enact a law limiting the power and specifically refusing to give them the power to which you refer, how are you going to accomplish the object desired?

Mr. MACGREGOR. The proposed legislation is a limitation and not an extension of power.

Mr. STEVENSON. Where are you going to place the power? You propose, Doctor Shibley, to place in the Federal reserve act that the officials shall shift the rate of discount so as to maintain the specific level?

Doctor SHIBLEY. They now have that power. They are actually fixing the rediscount rate.

Mr. STEVENSON. You would have them do that monthly under the bill?

Doctor SHIBLEY. The monthly adjustment is proposed by Professor Fisher, while I am suggesting an amendment to the Federal reserve act giving an instruction that will maintain stability and prevent deflation.

Mr. STEVENSON. All right. Suppose you put in into the law and there comes a short crop of cotton, and while cotton is not bringing the price that the farmers think it ought to the commission raises the rate and the banks would say they will charge the farmer the higher rate of interest for cash, because it has to be done to maintain the price level. The banks would say that the Federal reserve is putting the rate up, and blame the Federal reserve, and then the Federal reserve will say that Congress made them do it, and then there is the devil to pay.

Mr. MACGREGOR. If they got twice as much cotton under this system, they could buy twice as many goods.

Doctor SHIBLEY. There will be no trouble such as you speak of, for the public will quickly learn that the stabilization of the index number of average prices is a necessity. Whenever the Federal reserve officials shall raise the rediscount rate for cash it will constitute a very minor influence on the price of cotton, for the main factors as to the price of cotton will be the supply as compared with the demand. Also there are many other factors that are affecting the price of cotton and other products, and the time has come to publicly describe those other causes and propose the needed remedies. But that is outside the money question.

Mr. STEAGALL. This thought is deeply imbedded in my mind: I am in sympathy with what you are trying to do. I do not think the producers of this country should have to pay three or four times the amount for labor that they had to pay before, and the consumers should not have to pay two or three times more for the products they get; but, on the other hand, I think the man who puts out his money and invests it should get that money back. I am in sympathy with all that, but what I want to see—I am not saying that we can not solve it—is a system of laws that will accomplish that end rather than for us to give that power into the hands of men.

Doctor SHIBLEY. I agree with you fully. As I was saying, one of the remedies is the plan for a stable price level. But more deep-seated remedies are needed for restoring freedom in industry, in place of the existing reign of force on every hand, coupled with actual class war on new lines. The public and most of the legislators are not cognizant of the facts. An obscurity as to man's industrial future has existed which, very recently, is being lifted. The obscurity is being lifted. But that is not the subject that is before this committee.

In conclusion, I desire to outline briefly the history of the class conflict for the control of the price level. It has an important bearing on the present-day situation.

In 1898, in this country, the business interests, led by the trust magnates, came into power politically in the Congress elected that year—1898. They defeated the creditor class, who for 30 years had possessed a balance of power in the leading countries of the world. That political power in the creditor class explains the contraction of the volume of the money, a creature of law. Only by controlling the governments could there be restricted unduly the volume of legal tender, which is one of the elements of money. From 1865 in this country the

volume of money was cut down gradually most of the time for 30 years, accompanied by falling prices and hard times. The bimetallic standard of prices was disrupted by legislation in 1873; and then the gold standard of prices was gradually lowered, appreciating the exchange value of debts. By 1896 the monetary circulation per capita in this country was less than \$17, a cut to one-third of that which it was at the close of the Civil War. That was the work of the creditor class as a balance of power in the system of machine-rule party government.

In 1898 the power of the creditor class passed to the trust magnates, who wanted inflation to help offset the disorganization in industry from the ending of competitive prices—the use of trust prices. Then, from the beginning of the upward trend of prices in 1897, the volume of money in circulation in this country, up to 1920, increased threefold, whereas under the rule of the creditor class the shrinkage had been two-thirds.

Part of the inflation by the trust magnates was paper money, a legal tender between the national banks, with those banks receiving the interest, less a small sum paid to the Government. As the result of the act of March 14, 1900, the amount of paper money put out, and on which the private corporations received the interest, was \$700,000,000—more new money than would have come from inflation by reopening the mints to silver at 16 to 1; and this paper-money inflation, beginning in 1900, was on top of a rising flood of gold.

This period of inflation of which I am speaking was interrupted in 1907 by a panic for money and credit, caused by concerted action by the Standard Oil group in opposition to the Morgan group. The Morgan group lost heavily, and Mr. Morgan came to Washington and sat in the Senate gallery when Senator Aldrich introduced the bill for an elastic volume of paper currency, so as to install a system that would end the power of the Standard Oil group to corner the volume of money and credit. The Aldrich bill became a law, fortunately, supplying the Nation with an elastic volume of paper money, and then a few years later, when the Progressives were about to capture the Government at the polls in 1912, the reactionists were not able to throw the country into a panic for money and defeat the people's candidates.

I am telling you these facts, gentlemen, to point out just what took place up to the time of the people's peaceful revolution at the polls in 1912. The incoming progressive government, a coalition of the progressives in the two parties, set out to end the Money Trust and the other trusts. An investigation in the House had shown the existence of the Money Trust, and everyone knew of the industrial trusts—the era of big business.

In 1913 the administration put in a bill for a stable price level, as I have stated. But it was defeated. In my testimony at a hearing in the Senate I pointed out that the House had not accepted the plan for ending the inflation. The business interests were still continuing to plan for rising prices and exorbitant profits at the expense of the masses; that is, the business men wanted rising prices for their products, while wages would not rise as fast. My words before that Senate committee of 1913 were:

"The House bill provides that the interest rate for money shall be such as shall accommodate commerce and business, which is no satisfactory criterion, for those words have no technical meaning and will not prevent inflation. The business interests want inflation and the House bill provides that the volume of reserves that are to be kept by the national banks shall be cut in two, which means a wild inflation, except as the national board shall interpose a veto. For the national board to do this it would have to withstand pressure from the business men. Inflation would greatly benefit the business men and injure nine-tenths of the people, including the bankers and all of the creditor class. All doubt as to what the national board will do should be set at rest by restoring in the forthcoming law the rule that stability in the purchasing power of money shall be the aim." (P. 1172, Senate hearing.)

But a majority of the Senate committee voted as the House committee had done, which in the end proved to be for the best, for two main reasons:

First, the financing of a hard-fought war calls for a rising price level; and second, after the close of the World War there were two occasions when there was great need for discretionary power by the Federal Reserve Board, as I have narrated.

Because of the beneficial results of the discretionary power for the Federal Reserve Board, I have framed my present-day suggestion to provide for an emergency by authorizing the Federal Reserve Board to swerve from the main-

tenance of a stable price level temporarily, on condition of securing the consent of the President and announcing the new policy to the public, and of announcing to the public each of the subsequent changes of policy.

This general subject is such a large one that I have felt called on to present the broad aspects, as well as some of the details. A much more complete presentation is in my statement to the Senate Committee on Banking and Currency in 1913, to which I refer.

Gentlemen, I thank you.

The CHAIRMAN. We thank you very much.

Mr. GOLDSBOROUGH. Mr. Chairman, I am sure the committee have enjoyed very much Doctor Shibley's discussion. Some of us, unfortunately, were not here yesterday and did not hear the first part of it. He has evidently given it a great deal of time and trouble and thought and a great deal of care.

Mr. Lee will now address you.

The CHAIRMAN. All right.

**STATEMENT OF MR. WILLIAM C. LEE, OF WASHINGTON, D. C.,  
MEMBER OF THE NATIONAL MONETARY ASSOCIATION, FORMERLY CALLED THE STABLE MONEY LEAGUE.**

Mr. LEE. Mr. Chairman and gentlemen, I wish to call attention to the effect of the proposed policy upon the labor movement, and especially strikes; also the relation of big crops on this subject; and, finally, to mention briefly its effect upon thrift.

Labor disputes are oftener about pay, the question of higher or lower pay, and it is always assumed that when there is a rise in wages the workmen are better off. But this is not always true. Suppose in 1914 a certain class of workmen were getting \$4 a day, and that in the succeeding years, 1915, 1916, 1917, and 1918, their wages were raised a dollar a day each year, so that they received, by 1918, \$8 a day. Now, suppose the cost of living rose to double what it was in 1914, as it actually did. Then these workmen were not any better off in 1918 than they were in 1914.

Suppose that in 1914 they were asking for more pay; whether justly or unjustly is another question, which has to be decided elsewhere; but suppose they claimed that they were not getting the pay that by rights they should have had in 1914. They were equally justified, in 1918, in appealing again for more pay. But then the public and the employers would say, "You have been raised four times and are getting twice as much as you did before."

We hear that argument on every hand, but it is not correct; they were not getting twice as much in reality. Eight dollars in 1918 were not twice as much as \$4 in 1914; not at all, but just the same thing. Hence those workmen were getting no more real pay—that is, purchasing power—in 1918 than they were in 1914.

Yet to bring about that nominal increase there have been labor troubles and demands; there have been adjustments with labor unions on the question of pay; and perhaps strikes have taken place. These men's pay was raised from \$4 a day to \$5, \$6, \$7, and \$8, as a result of agitation and strikes; yet all of that strike work was futile, because here they are back right where they were, getting relatively no more in 1918 than they got in 1914. So we see that all those strikes were wasted, with all the cost and annoyance they brought to employers and all the cost they made to the community.

We could abolish strikes to a large extent by establishing a stable price level. That, gentlemen, is an immense consideration. You know that strikes are very costly. We have heard so much about the coal strike and the steel strike and every other strike as being costly. We have much machinery for settling strikes, and sometimes it works well and sometimes it does not; but a large part of the strike troubles would be entirely abolished, by establishing a stable price level.

Now, you might ask who is to stand the loss when wages must go down? There will be no such loss in normal business if the price level keeps along continuously; but as it stands, the increase of wages is like putting stones on a muddy crossing. I used to live in a suburb of Washington, and in front of my house were two muddy streets, and there was a gravel crossing over one. When I first went out there I was much pleased to see that crossing on the street leading down toward the depot where the commuters went. After a while the gravel stones disappeared and the crossing became muddy, so I put new stones on the crossing, and for a time it was all right.

Then those stones likewise sank in the mud. I kept putting on more stones, and they kept on sinking down. So it is with the increasing pay of labor. More dollars, but every dollar worth less and less. More dollars, but no more benefit.

It is the same way with more pay for farmers. If it is only by inflation that they get more dollars for their crops, then those dollars progressively grow less valuable and the farmers have to pay more for labor. I was up in Loudoun County at the home of a dairyman who had to pay \$6 a day for farm labor. He thought that was an outrageous amount, and he said the farm hands were not any more efficient than when they got \$3 a day. Do not grain and live-stock farmers have the same troubles?

Members of the committee have asked how this will affect the supply and demand of commodities. Suppose there is a big crop of cotton. Cotton has been mentioned the oftenest in this hearing; but the same is true with wheat and other commodities. Suppose there is a big crop of cotton. Then, of course, it will be worth less per bale. The more there is of anything, the less it is worth per unit. One answer that might be given is that they should not produce so much cotton; they might produce less, and then it would be worth more. But that is not a good answer, because the country needs more cotton, more clothing material. We do not want any arrangement that will compel the producers to reduce production.

As it stands, the more the farmer does, the more efficient the farmer is in producing food and textile materials, the less he is paid. This is very wrong and should be corrected. But this correction is a different problem from the price-level problem.

How is this problem of farm profits to be met? It may be said that the farmers should have a better method of distribution, a better organization of the farming industry, so that there will be a better distribution of farming effort, so it will be applied to the farm crops that are needed and not result in producing an excess of some things. Then, further, the farmers should have cooperative marketing to get their crops to market in the most profitable way; and they should have the requisite credit to hold their produce until the proper time comes to send it to market. There may be other elements, and probably are, that would enable the farmer to get more pay for his work. But, after all, money is what he is to be paid in.

Right there is where the whole point of this bill comes in—to make sure that the money is good money. How much money is another question. This bill is intended to stabilize the money in which the farmer is to be paid for his work. The work is to be paid for in dollars, and we want to see those dollars worth something and not see them become progressively worth less and less.

Now, as to how many dollars. The farmer wants a high price for cotton. What does that mean? It means that the price of cotton should be high as compared with the price of other commodities, not that all commodities alike must be higher and higher. There may be a general high price level, yet the price of cotton may be low as compared with the price of other commodities. There may be a low price level, and the price of cotton may be high as compared with other things.

Gentlemen, look at my hand [standing up and extending his hand and arm]. My hand, as a whole, represents the general price level. It may be high. I raise my hand to the height of my shoulder. It may be low. I lower my hand to the level of my waist. The middle finger represents the price of cotton. I can put that up or down to represent the higher or lower price of cotton, regardless of where the whole hand is. Each finger may go up or down, and so it is with the price of any particular farm product. Any one commodity may go up or down, while the general price level remains the same; and the whole hand may be raised or lowered without changing the relative position of any finger. So you see that the matter of where the finger is on the hand constitutes a different problem from where the hand shall be—high or low—as compared with the ground.

The same is true with regard to any crop. The object of this bill is to hold the hand at one height, letting the different fingers go up or down according to their respective conditions. I for one am quite ready to admit that the farm product fingers should be higher. Yet the whole hand should not be higher.

The general body of bank credit is determined by the Federal Reserve Board, and they also have at present the power to determine the position of different lines of credit in the general body. The general body has been rising and rising.

and at one point of time the credit for cotton and corn went down as compared with the rest. Suppose you gentlemen desire that particular portion of the credit not to go down, but to maintain a fixed position with reference to the rest, or to be given a more advantageous position, that is no reason for having the total volume of credits go higher. We want the total volume to be kept just right to maintain the price index always at the same level.

Mr. APPLEBY. You spoke of holding goods for prices to advance. If you were a potato farmer in New Jersey—my district is the largest potato-growing section in the United States, and they have a cooperate marketing proposition, a farmers' exchange. This year the association has lost almost \$100,000, because of the low price they have obtained for potatoes. As I understand, you can not save a potato crop; it has got to be marketed and sold within a few months. How would you adjust the price of potatoes in a case of that kind?

Mr. LEE. Do you mean to say that the potatoes all have to be used in a few months?

Mr. APPLEBY. They can not save them very long.

Mr. LEE. We eat potatoes the year round. Somebody must save them.

Mr. APPLEBY. They may come from Canada or cold sections; but in New Jersey they have to pick them before cold weather, and then they can not keep them except for a limited time before they begin to rot or sprout, so that the bulk of the crop will not carry over to the next year.

Mr. LEE. We eat old potatoes in the spring before new potatoes come.

Mr. APPLEBY. They are higher and scarcer; but the average crop of potatoes in New Jersey is like the peach crop, more or less, though not so sensitive as that; but it is a perishable crop. I am trying to find out in what way you would suggest that those farmers would not have such a loss as they had last year on their crop.

Mr. LEE. There are two things. To whatever extent the potatoes can be saved throughout the year, the producer should get the benefit of higher prices rather than speculators; and to whatever extent the potatoes can not be saved, I think an excessively large crop is a misdirection of farming effort.

Mr. APPLEBY. Suppose they do as has been done in other sections of the United States; suppose they plant a short crop? Suppose, now, they go in the spring and buy seed potatoes at very high prices and buy fertilizer and pay labor at the advanced prices, and when the potatoes are brought to market there is a superabundance and the price goes down and the farmer does not get what he put into them, even when the farmers have an exchange of their own? Now, I am trying to get you to tell me, so that I can tell them, how under this new proposition they are going to come out next year.

Mr. LEE. It looks as though they have been depending on potatoes too much.

Mr. APPLEBY. It is just the same as with the tobacco crop and the cotton crop. It is a proposition of what is best adapted to the soil.

Mr. LEE. Well, that is a difficulty aside from the price level. They will have to learn to adjust their farming, if they must raise potatoes, so that potato growing will be profitable. And they want to be paid in money, but do not want to be paid in money that is less and less valuable.

Mr. APPLEBY. Do you think the proposed plan would solve their problem?

Mr. LEE. It might, but I am not prepared to say positively as to that; but it is a question of adjustment of the potato industry rather than a question of the general supply of money.

Mr. APPLEBY. There is a question of supply and demand, after all, which largely affects the price of the potatoes, as well as the price of every other product.

Mr. LEE. The question of supply and demand fixes the price of a particular product as compared with the prices of other products; but the supply and demand of gold is what fixes the prices of all products. The ratio of the price of potatoes to the prices of other products is one thing, and the ratio of average prices at one time to those at a previous time is another subject.

Mr. APPLEBY. Then you do not think the question of supply and demand is a basis on which prices are largely fixed for any given commodity?

Mr. LEE. The supply and demand of each particular commodity determines the price of that commodity. But a price in what? In dollars. And the question is, What are the dollars good for? And the supply and demand of gold is what determines that.

Mr. APPLEBY. All right. Go ahead with your statement.

Mr. LEE. One of the committee yesterday remarked that away back when this insurance policy that was mentioned was taken out, which was 1893, the farmers were getting only \$148 net for that year, whereas the same farmers now are getting \$700. The rise of prices has been since the year 1896. Before that they had been going down for a long period of years, and it was that going down which made the farmers suffer then; not merely the fact that the number of dollars was so small as 148. If the prices had been stable for a long while, \$148 net return might have meant just as much as \$700 does now. But then prices were going down, and since then they have been going up.

Now, I want to bring in again the comparison of the muddy sidewalk. We are having rising prices now, but we may have another spell of falling prices, and you all know what appreciating gold did to the farmers. You all know how the farms were plastered with mortgages and how hard it was to pay them. It was like putting stones on the muddy crossing, which swallows them as they are laid. The mortgages were the muddy crossings at that time, and the farmers' payments were the futile stones. We have to consider money fluctuation not only as we know it now but for long periods. This is a proposition to change conditions permanently.

I wish to give briefly a statement as to the effect of cheapening money upon thrift. Life insurance companies tell us very few people leave estates. You have all seen those circles divided up into different colored sections. Those who fail to save fail in many cases because they do not have sufficient incomes to allow them to save. But many people do not think much of the proposition of saving.

Mr. MACGREGOR. Most people are that way.

Mr. LEE. Maybe so. The life insurance companies and the banks keep crying out what a good thing it is to save. Educators and sociologists always assume that it is, but there are many people who refrain from saving, not because they can not but because they think it is not worth while. They say, "If we put it in the bank, the bank may break; if we put it in stocks, the stocks may be nothing but blue sky; if we invest it in business, the business may fail; if we put it in real estate, the boom may burst. Then, we have done without things in order to save and have nothing after all. Let us spend it while we have the chance and get some good of it."

Most people are not qualified to invest and most people are not in independent business. We hear so much about the effect on business, but the great majority of people are not in business. They are wage and salary earners. They wish to save something for their children, so they decide to put their savings in life insurance or to put their money in a savings bank. Many people think if they put it in the bank it will be safe. But we see what comes of putting it in the bank. That servant girl Doctor Fisher mentioned put her money in the bank; and the case of the man putting his money into life insurance was referred to. His 5,000 cheapened dollars were equal to only 2,000 of the dollars current when he took out his policy.

Then some people say, "Well, Government bonds are good and safe," so they buy Government bonds. But Government bonds go down—that is, the money does. So, whatever people do, there is a good deal of ground for the opinion that it does not pay to save, and that only if they use what they have as they go do people get the good of it.

This discouragement to saving is an evil. It not only keeps some from saving but it spoils the work of those who do save. If they do right and save, their savings and insurance are canceled by the depreciation of the dollar.

Now, people must be provided for in old age. It is a social duty to provide for the aged, and these increasing prices simply add to the difficulty of that. Those who have done their duty in the past and are now past working are the ones who are hit by the advance in prices. They can not recoup, as can those who are still in active business.

Mr. MACGREGOR. You say it is a social duty to provide for the aged. Of course, it is very commendable, but should the thrifty be taxed for the comfort of the thriftless?

Mr. LEE. Well, if they are not taxed, the appeal to charity will apply to them, and they are subject to that. If they give it as charity it costs just as much as to give it in public funds, and as for the unthrifty, this instability of money encourages lack of thrift. We can induce people to be thrifty if they know they will not lose what they save.

Mr. GOLDSBOROUGH. We are very much indebted to these various gentlemen who have addressed the committee. Now, I would like to insert in the record

some commendations of this measure from persons who were unable to attend the hearings. The first is from ex-Vice President Thomas R. Marshall, and the others are from Roger W. Babson, president of the Babson Statistical Organization at Wellesley Hills, Mass.; John Bates Clark, of the Carnegie Endowment for International Peace; E. W. Kemmerer, professor of economics of Princeton University; H. A. Wallace, who, with the Secretary of Agriculture, Henry C. Wallace, is the editor of Wallace's Farmer; Alvin Johnson, editor of the New Republic.

An editorial in the Dry Goods Economist dated December 16, 1922.

An editorial in the New Republic dated December 11.

An editorial in Wallace's Farmer dated November 3, 1922.

And various indorsements by chambers of commerce and boards of trade, which I will leave with the clerk.

Now, Mr. Chairman, I have a suggestion to make, that the opponents of this bill be heard at 10.30 o'clock a. m. on Monday, January 29. I have seen Messrs. McFadden, Steagall, Stevenson, and Lawrence, and that meets with their approval, and I make that motion.

Mr. APPLEBY. The first request is that the letters and other indorsements enumerated by Mr. Goldsborough be allowed to be printed in the record. If there is no objection, it will be so ordered.

(There was no objection.)

Mr. APPLEBY. The second request is that the hearing on this bill for the opponents of the measure be set for Monday, January 29, at 10.30 o'clock a. m. If there is no objection, we will fix upon that date, and it is so ordered.

(Thereupon, at 12.30 o'clock p. m., the committee adjourned.)

(The various papers referred to follow.)

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FRANKFORT, IND., August 9, 1922.

HON. T. ALAN GOLDSBOROUGH, M. C.,

Washington, D. C.

MY DEAR MR. GOLDSBOROUGH: I am so glad that you have introduced a bill to stabilize the purchasing power of money. I wish I could be present at the hearing, but it will be impossible for me to do so. Don't let this matter drop or stop with a perfunctory hearing because this is a thing that is going to come to pass and you will be a very proud man to know that you had the honor of, taking the initial step in the House of Representatives.

Cordially yours,

THOS. R. MARSHALL.

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UNITED STATES COAL COMMISSION,  
Washington, December 19, 1922.

MY DEAR MR. GOLDSBOROUGH: Although I think I am busy at the work in which I am engaged, I would take time enough to appear before your Committee on Banking and Currency if I had any facts to give you upon which to base the action of the committee. Unfortunately I have no such facts to communicate. It is theory with me, and yet theory which must be founded upon inherent possibilities by American genius.

I was told years ago that no banking system could be devised so as to produce a flexible currency, thereby minimizing unnecessary bankruptcy and preventing nationwide panics. Yet I lived to see the genius of the American people furnish a system that has accomplished just that much desired purpose. But the Federal reserve law is only one-half the problem. It can not be possible that the one important medium of exchange in all the world is to be a fluctuating measure of purchasing power. If every other medium by which we pass commodities from hand to hand has been stabilized and standardized, assuredly it is possible to stabilize and standardize the dollar so that, relatively speaking, from year to year a man may obtain for the common and ordinary wants of life the same needs as measured by this medium.

I do not pretend to say that your bill is perfect. I should say it was not. But I think it should be reported out and receive the deliberate consideration of those skilled in finance. Our laws are not like those of the Medes and Persians. Found futile or inefficient, they may be amended or repealed, but

if you will take into consideration the vast appropriations that are made from time to time to meet the certain emergencies in American life arising from this fluctuating purchasing power of the dollar, while I have not got the exact figures, I believe that it would go far toward repaying the Government for any sums it might lose in maintaining the purchasing quality of the dollar from year to year.

We have solved one-half the problem. Your bill is the first factor in the attempt to solve the second. If reported out from the committee, it ought to bring to bear the critical judgment and suggestions of men who are experts upon the question.

Very sincerely yours,

THOS. R. MARSHALL.

HON. T. ALAN GOLDSBOROUGH,  
*House of Representatives, Washington, D. C.*

BABSON PARK CO.,  
*Wellesley Hills, Mass., December 16, 1922.*

HON. T. ALAN GOLDSBOROUGH,  
*House of Representatives, Washington, D. C.*

DEAR MR. GOLDSBOROUGH: You have my statement relative to the subject, and I could not say any more at a hearing. I have only to-day returned from a long six weeks' trip, and it is absolutely impossible for me to get to Washington this next week. The truth is that I have important appointments from now until January 26, which is my first free day.

Very truly yours,

ROGER W. BABSON.

WELLESLEY HILLS, MASS., August 4, 1922.

HON. T. ALAN GOLDSBOROUGH,  
*Washington, D. C.*

MY DEAR MR. GOLDSBOROUGH: I understand from our correspondence that a hearing is to be held on your bill for stabilizing the dollar sometime toward the end of August. I hope to be present and to make a statement in person, but, whether I shall be able to or not, I want to tell you how glad I am that you have brought forward this proposal. If you can convince Congress of the grave need of this legislation at this time you will have accomplished one of the greatest tasks ever set before statesmen. If you do not succeed in your first attempt I hope you will keep everlastingly at it. Depend upon it, some day the dollar will be stabilized.

It is the growing consciousness of the need of stabilization which has led not only to Professor Fisher's plan, which your bill embodies, but to the less worked out plans of Edison, Ford, Senator Ladd, etc.

Business men and bankers have expressed alarm over some of these proposals on the ground that they may produce inflation. Any proposal, the effect of which would be inflationistic, ought to be nipped in the bud. What we want is something to prevent both, and that is the object and effect of the bill which you have introduced. The common idea that we must, on principle, oppose any plan to change our currency system is simply sitting on the safety valve. If something is not done to give us a scientific and stable currency some unscientific and unstable currency will be enacted. The only way to head off further instability is to make greater stability. The conservative man who is afraid of a change ought to support your bill because our present system changes our monetary standard every year. This constant change in the purchasing power of our dollar is the greatest foe of conservative business. It makes a speculation of everything. For years I have been studying the business cycle and trying to help the business man, by foresight, to struggle through the cycle. But I have repeatedly said in my speeches and writings on this subject that until we had the Fisher plan or some equivalent for stabilizing the dollar the business man would always be suffering from the business cycle. The trolley companies which were at one time so prosperous were literally ruined by the depreciation of our dollar. I made a special investigation of this. I could give instance after instance of the evils which come from a changing yardstick in commerce.

As ex-Vice President Marshall has said, next to the peace problem, the problem of stabilizing the dollar is of the next greatest importance.

I have studied Professor Fisher's plan from time to time with great care and the objections which have been alleged against it. As I have often said, only those who do not understand it oppose it.

Let me add that my audiences of business men all over the country, whom they have had the idea explained to them, like it immensely.

The Congress which stabilizes the dollar will deserve and receive the everlasting gratitude of the business world.

With the most earnest wishes for your success, I am,

Very sincerely yours,

ROGER W. BABSON.

CARNEGIE ENDOWMENT FOR INTERNATIONAL PEACE,  
New York City, December 12, 1922.

Hon. T. ALAN GOLDSBOROUGH,  
House of Representatives, Washington, D. C.

DEAR SIR: I should enjoy being present at the hearing on December 13, but I shall have to ask to be excused from making the trip just now because of a multitude of engagements.

On general principles I am in agreement with Professor Fisher. The question now at issue appears to be whether one great country shall adopt the dollar of variable weight and uniform commodity value and shall do it at a time when prices have been driven to a high level by an abnormal influx of gold. I have been for quite a term of years in the same position in which perhaps a majority of modest property holders have been. What we have held and still hold is a claim that is good for a certain number of dollars—bank accounts, savings deposits, insurance policies, bonds of all kinds, personal notes receivable, business charges against debtors, all of which are claims for fixed numbers of dollars and, during these years, they have had a declining purchasing power. The majority of us have lost by this means a very appreciable fraction of our estates, if by "estates" we mean goods or real wealth. If the dollar of variable weight were now introduced and made applicable to the payment of claims now outstanding, the loss that we have sustained by the shrinkage from the purchasing power of the dollar would be confirmed. There would be no prospect of recovery through a decline of prices—which is an increase in the commodity value of gold. The existing standard dollar has muled us and the new one would put up the bars against recovery.

This, of course, suggests the possibility that we must stand our losses in any case. Prices may not be about to go down. If there is any prospect that other countries will reclaim a fair proportion of the world's gold, it would be better for us to let them do it before we put upon our respective estates a stamp of fixity. Creditors of all classes are, in my opinion, interested in a proper apportionment of the whole existing stock of gold among the nations of the world. When that shall have taken place everybody will be interested in giving to currency the stability which Professor Fisher's plan is designed to secure.

Putting the facts in another order, it may be said that we now have a claim for a fixed amount of gold and, if the proposed adjustment is made and values of commodities go down in terms of gold, what we shall have as the years go on will be a smaller and smaller amount of gold. The present is a bad time to make the change if savings accounts, life-insurance policies, notes, bonds, etc., are to be largely considered.

I am, very cordially yours,

JOHN BATES CLARK.

PRINCETON UNIVERSITY,  
Princeton, N. J., December 12, 1922.

Hon. ALAN GOLDSBOROUGH,  
House of Representatives, Washington, D. C.

MY DEAR MR. GOLDSBOROUGH: I appreciate your invitation of December 8 to attend the hearing before the Committee on Banking and Currency on H. R. 11788, to stabilize the purchasing power of money.

I have an engagement in Lansing, Mich., the latter part of this week and I doubt if I shall be able to be back in time to attend the hearing. If at all possible, however, I shall be there.

I believe that one of the most urgent needs of the world to-day is a stable monetary unit. My general views upon the evils of unstable units you will find discussed briefly in my little book, *High Prices and Deflations*, which was published in 1920. The most promising plan for attaining a stable unit of value with which I am acquainted is the so-called Fisher plan for stabilizing the purchasing power of money, which is the basis of H. R. 11788. I believe that this plan is essentially sound, and, while it will probably be modified in certain particulars, in the light of experience I believe it offers a good basis upon which to begin.

Very truly yours,

E. W. KEMMERER.

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WALLACE PUBLISHING CO.,  
Des Moines, Iowa, December 11, 1922.

HON. T. ALAN GOLDSBOROUGH,  
*Representative First District of Maryland, House of Representatives.*

DEAR SIR: I regret to say that because of the fact that I am secretary of the Corn Belt Meat Producers' Association, which holds its annual meeting on December 20 and 21 this year, that it will be impossible for me to attend the hearing on your bill to stabilize the purchasing power of money. Mr. Murphy, who handles many of the farm cooperative and legislative problems for Wallaces' Farmer, will be in Washington from December 15 till December 25, and I am sending with him some extracts from Wallaces' Farmer on "The Fisher stabilized dollar."

I have studied the Fisher stabilized dollar plan for a number of years and have also read many criticisms of the plan and talked with economists and bankers who regarded the plan as impractical. I have yet to find, however, a really valid objection which is not at the same time a more serious indictment of the present system than it is of the Fisher stabilized dollar. Some people center their attention on the discrepancies between different types of index numbers. True it is that some index numbers move a little more promptly than others, but anyone who has studied the matter knows that over any long period of time the standard index numbers give substantially the same results. If an index number is used which is based quite largely on wholesale prices of materials which have been processed but little, the Fisher stabilized dollar will act with somewhat greater force to minimize the swings of the business cycle than would otherwise be the case.

There is an ever-increasing interest being shown in the stabilized dollar here in the Middle West, although the majority of the farmers do not understand it as yet.

I am asking Mr. Murphy to give you clippings from Wallaces' Farmer stating our attitude on the stabilized dollar, and if he finds that this will not be of the right kind of service to you he is to write me as to what kind of statement will be most helpful.

Very truly,

H. A. WALLACE.

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THE NEW REPUBLIC,  
NEW YORK CITY, December 11, 1922.

HON. T. ALAN GOLDSBOROUGH,  
*House of Representatives, Washington, D. C.*

DEAR SIR: I greatly regret that I shall be unable to be present at the hearing on your bill to stabilize the purchasing power of money.

It is impossible to exaggerate the importance of the reform which the passage of this bill would effect. Fluctuations in the purchasing power of money are, I believe, the most serious existing menace to our national prosperity, to social justice, and to political stability. They inject an element of speculation into every transaction extending over even a brief period of time. Every man who lends money, buys a bond, or takes out a life insurance policy assumes a heavy risk, as matters stand. The death benefits that have been paid since the war, for example, have represented at least a third less in purchasing power than the policyholder contemplated when he signed his contract in the pre-war period. His dependents have been mercilessly mulcted by monetary defects which it lies within the power of Congress to correct.

The fluctuating value of money is far more responsible for profiteering than any vicious intent on the part of the profiteers. It afflicts the Nation with periods of strikes on a rising market, when wages lag behind rising prices, and periods of widespread unemployment when costs do not drop as rapidly as prices. It breeds discontent and despair in hundreds of thousands of minds and produces all manner of distorted political aspirations. It is my belief that the plan you propose for correcting this colossal evil is feasible and effective and that if it could once be tried out there is no class in this country that would be willing to return to the present condition.

Respectfully yours,

ALVIN JOHNSON.

[From the Dry Goods Economist, December 16, 1922.]

#### OUR FLUCTUATING GAUGE FOR COMMODITY VALUES.

Of late years the world has had many a striking object lesson as to the changes in "value" which may take place in connection with paper money. We have seen the mark, the franc, the lira, and even the pound sterling lose its purchasing power in greater or less degree. The Austrian krone and the Russian ruble are still more striking evidence that the fiat of a Government can not make paper money valuable if that Government is not in a position to redeem its currency at its face value.

What is not so clearly evidenced or so generally understood is that even gold or gold currency is far from being an exact, unchanging standard or measure of value. Ever since the beginning of the war there have been wide fluctuations in the purchasing power of our money, though firmly founded on a gold basis. True, the purchasing power of our gold-basis currency does not vary in like degree as has that of certain paper currencies, but the fact ought to be clear to us all that even where a country is absolutely on a gold basis its money is not by any means an unchanging or stable standard of value. As an example, it has been pointed out that the United States dollar of 1920 was worth not more than 38 per cent of the dollar of 1913, this because the wholesale price level increased during those years about 165 per cent.

Even in times of peace there has always been fluctuation in the value of commodities measured in terms of gold, or, putting it the other way, in the purchasing power of gold. From 1873 to 1896 the purchasing power of money in gold-standard countries increased. Thereafter, until 1914, it decreased.

We measure the value of commodities in terms of gold. It is equally true to say that we measure the value of gold by the commodities it will purchase. Increased output lessens the price of commodities, and in the same way the increased output of gold during the years from 1896 to 1914 lessened the "value" of gold; that is, its purchasing power was reduced. The same amount of gold would not buy the same amount of commodities as it did prior to 1896.

This proposition may seem difficult to some, for the reason that apparently the gold dollar and the other currency based on gold in this country do not change in value. A gold dollar or a \$20 gold certificate will buy that same amount of gold, for dentist work, or for making jewelry, etc. But most of us do not buy gold; we buy food, clothing, and other commodities. And when we measure the value of our gold coin or other currency by what we get for it we find that the money has not the same "value," or purchasing power, as it had prior to 1914. This condition is described in the statement that "prices are higher." They are also much higher to-day than they were during the period immediately prior to the year 1896, when wheat sold for just about half a dollar a bushel.

This fluctuation in the "value," or purchasing power, of the American dollar is a bad thing for most of the people in this country. It is especially troublesome when one contracts debts which are to be paid off in the more or less distant future.

In the seventies, eighties, and early nineties of the last century the mortgage on the farm provided a favorite theme in fiction and in the theater. The difficulty involved in paying the mortgage was represented as the cause of tremendous anxiety to the farmer and his family. And the payment of mortgages was then a difficult matter, due to the fact that year by year the gold, in which the mortgage had to be paid, was, as above stated, constantly appreciating in value, and, conversely, the value of the commodities raised by

the farmer was declining. It took more and more wheat or other products to produce the required amount of gold.

After the year 1896 the old mortgage-on-the-farm motif ceased to be popular, because the purchasing power of gold was declining. In other words, less and less quantities of farm products were needed in order to raise the required amount of gold. At the present time, and since 1920, the farmer has been up against it in the matter of paying off his mortgages, because of the greater amount of his commodities which he is obliged to give up in exchange for gold—or for its representatives in the form of other legal money of the United States.

This matter of the unstable nature of currency, including both gold itself and currency fully redeemable therein, has received a great deal of attention during several recent years. The resultant ills have long been emphasized and a possible remedy has been urged by Irving Fisher, professor of political economy at Yale University, and despite severe criticisms from various quarters his insistence on the possibility, as well as the necessity, of devising a more stable form of money has gradually won from authoritative sources indorsement of the idea.

Tangible form has been given to the effort to solve the problem in a bill introduced at Washington by Representative Goldsborough, of Maryland. In addressing the House at that time Mr. Goldsborough emphasized the value of stabilization to the farmer, the salaried man, and the wage earner, as well as to every other class in our complex and highly organized civilization. He also announced that the bill has the approval of farmers' organizations, labor organizations, and professional men, and also of "the very highest authorities on national and world-wide finance, economics, and legislation."

Needless to say a great deal of water will pass over the wheel before any legislation is enacted for the solution of a problem so complex and, in a great degree, so novel as this of the stabilization of the dollar. The movement is one, however, which even in this early stage ought to enlist the warm sympathy of the merchants of this country, seeing that their difficulties are increased and intensified by the constant fluctuations in the dollar's purchasing power.

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#### GOLDSBOROUGH'S CURRENCY BILL CALLED "RADICAL CURE."

[From the New Republic, December 11, 1922.]

On December 18 hearings will be held before the Committee on Banking and Currency on a bill which, if it could become a law, would work more effectively toward economic justice and practical stability than any other measure that has been proposed in decades. We refer to Congressman Goldsborough's bill "to stabilize the purchasing power of money." The method it applies is well known through the works of Prof. Irving Fisher. Vary at need the metal content of the "gold dollar" in the reserves on which the currency is based. When prices measured in gold rise increase the gold in the "dollar" proportionately; when prices fall reduce it. By this plan a hundred dollars in currency would command approximately the same volume of the necessities of life, from month to month and from decade to decade. It would establish increased security and definiteness for all financial transactions extending over a period of time. Most important of all, the plan would do away with the friction between employers and employees that always attends great changes in the price level. Most strikes are called either to force up wages when prices rise or to resist wage cutting when prices fall. They are the direct product of a defect in our monetary system, for which Mr. Goldsborough's bill offers a radical cure.

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[From Wallaces' Farmer, Des Moines, Iowa, Friday, November 3, 1922.]

#### THE FAILURE OF THE GOLD STANDARD—GOLD STANDARD AIDS THE SPECULATOR AND INCREASES THE HAZARDS OF INDUSTRY.

[By Henry A. Wallace.]

"Was man made for the gold standard or the gold standard for man? We have had 50 years now of the gold standard among civilized countries. While the gold standard has proved to have some points of superiority over bimetalism, it is nevertheless full of glaring weaknesses. Under it we are apparently

doomed during the next 20 years to see continually falling prices with only now and then a brief intermission of a year or two.

"This means continual industrial warfare, for in times of falling prices organized labor clings blindly to its high wages. It means continually disgruntled farmers, for in a time of falling prices organized labor profiteers unmercifully at the expense of the farmer and unorganized labor. These internal discords cut down production and a long period of stagnation ensues, such as we enjoyed in the eighties and nineties.

"What is the answer? Does the Fisher stabilized dollar show the way out? Mr. Wallace thinks it does, and in this article he gives the reasons for his belief."

Human ingenuity has done wonderful things in the breeding of more useful plants and animals, in discovering improved methods of spinning and weaving, and in the invention of means of rapid transit and communication. In one field, however, new methods are introduced with extreme caution, and anything revolutionary in the way of an invention is taboo. I am referring to banking.

The fundamental purpose of banking should be to manufacture and conserve credit in such a way as to foster most effectively a productive, happy society. Bankers are the oiling and to some extent the ignition system of civilized society. If we liken modern society to a Packard car, we may say that unfortunately it is equipped with an oiling and ignition system suitable to a Ford of 1901. We have a wonderfully flexible car of great potentialities if it were not for the antiquated oiling and ignition system.

For the purposes of this paper, my quarrel is with the large eastern banker, and not with the small town and country banker, whose chief shortcoming is in being influenced unduly by the views of the big bankers. My greatest criticism of the big bankers is that they cling blindly to the gold standard and resent any inquiry into a more up-to-date basis for our currency as heretical.

#### DEMAND FOR GOLD RESULTS IN PRICE DECLINES.

For thousands of years gold and silver have served as a basis of currency. England in 1816, at the close of the Napoleonic wars, adopted gold as the sole basis, and in so doing led the way to the gold standard as distinguished from bimetallicism. Germany joined England in 1871. The United States had in effect been on a gold basis since 1834, but final legislation was not passed until 1873. France clung to bimetallicism longer than any other great nation, but finally gave it up as impossible in 1878. Unquestionably the gold standard was a step in advance of bimetallicism, although in the seventies when it was adopted, it had rather grave consequences. The strong demand for gold in the seventies to serve as a metallic base for currency in France, Germany, the United States and other nations, resulted in world-wide price declines and as a consequence very serious injustice was done to borrowers the world over. The farmer of the Mississippi Valley was especially damaged, the result being the greenback populist, and free-silver agitations.

That the scarcity of a metallic base for the currency was the cause of falling prices during the late seventies, eighties, and early nineties in gold standard countries is indicated by the fact that index numbers for England, France, Germany, and the United States fell during this period by about 20 per cent, whereas, in the case of silver standard countries, such as India, China, and Japan, prices rose during the same period by about 10 per cent. The silver which the West discarded as a part of its metallic base for currency found its way to the East and helped to advance prices there at the very time that prices in the West were falling.

So far as the gold-standard countries were concerned, the situation was completely reversed in the nineties by the discovery of tremendous gold deposits in the South African Rand, smaller deposits in the Klondike, and especially by the application in a large way of the cyanide process to gold production. The average annual gold production increased from around 160 tons in the eighties to 670 tons in the five-year period before the war. Largely as a result of this flood of gold, which greatly broadened the metallic base of our currency, the price level increased by more than 50 per cent between 1896 and 1913. The farmers, who had been the chief sufferers during the preceding generation, were now the chief beneficiaries. The debtors who had formerly found it so hard to meet their interest, now began to prosper at the expense of those who loaned money. The laboring men and salaried classes began to mutter about the high cost of living.

And now we come to a time when the evils arising out of war are complicated by the irrelevancies of the gold standard. The bankers interpret the gold standard to mean a return to pre-war price levels. The Federal Reserve Board, in the fall of 1919 and early in 1920, raised rediscount rates from 4.5 per cent to 7 per cent with the deliberate object of breaking prices and protecting the gold reserves of the system. The literal adherence of the Federal Reserve Board to the gold theory of banking caused the most rapid price decline in history. The question naturally arises, Was man made for the gold standard or was the gold standard made for man? We have had 50 years now of gold standard among civilized countries. While the gold standard has proved to have some points of superiority over bimetallism, it is nevertheless full of glaring weaknesses. Under it we are apparently doomed, during the next 20 years, to see continually falling prices with only now and then a brief intermission of a year or two. This means continual industrial warfare, for in times of falling prices organized labor clings blindly to its high wages. It means continually disgruntled farmers, for in a time of falling prices organized labor profiteers unmercifully at the expense of the farmer and unorganized labor. These internal discords cut down production and a long period of stagnation ensues, such as we experienced in the eighties and nineties. Bond holders and other people living off a fixed income may think they are profiting by the falling prices, but even they may well think twice, for in a time of this sort there may eventually develop a class revolution which will make their bonds worthless.

Of course, I recognize that our troubles are due to many other things than the gold standard. I do assert, however, that the gold standard fails so miserably in measuring values accurately that it causes a considerable part of our class warfare. A practical substitute for the gold standard is the Fisher stabilized dollar.

#### MAKING THE DOLLAR AN ACCURATE MEASURE.

The Fisher scheme is to make the dollar as accurate a measure of value as the yard is of length or the ton is of weight. It would give us a dollar of uniform purchasing power from one year to the next. Under the gold standard the dollar measures gold accurately, and nothing else. A dollar is always 23.22 grains of fine gold, but in the purchasing power of the ordinary necessities of life, a dollar may be worth only 40 cents to-day as compared with a full 100 cents 20 years ago. The Fisher dollar would always remain constant in purchasing power by the simple device of shifting the gold content of the dollar. If prices were continually tending upward, the dollar would be weighted heavier and heavier until after a time it might contain 30 instead of 23.22 grains of gold. Of course there would be no gold coins in circulation, but the paper money in use would be redeemable in varying quantities of gold, possibly at the rate of 23 grains to the dollar to-day and 15 grains 10 years from now. "Ah!" exclaim the bankers, "this is a device to enable borrowers to avoid paying their full obligations; it is a method of cheating those who lend money." But as a matter of fact, who gives a hang about gold values? What we want is a dollar which will remain constant in purchasing power, no matter whether it is redeemable in 1 grain or 100 grains of gold.

The Goldsborough bill for stabilizing the dollar, which is at present before Congress, provides for establishing the Fisher dollar starting with January 7, 1924. On that date a dollar shall be taken as equivalent to 23.22 grains of fine gold, but thereafter the quantity of gold in which a dollar is redeemable shall vary with the index number as computed by the Bureau of Labor Statistics, the index number to be based on about 100 commodities, such as wheat, corn, pig iron, copper, coal, etc. Index numbers are to be computed on the first Wednesday of January, March, May, July, September, and November, and by the second Wednesdays of these months the data as to the index number is to be transmitted to the Bureau of the Mint, which shall buy and sell gold during the ensuing two months on the basis of the new index number. For instance, assuming a January and February value of 23.22 grains of fine gold to the dollar and an increase of one-half of 1 per cent in the price level in March, the Bureau of the Mint would then proceed to buy and sell gold on the basis of 23.34 grains of gold to the dollar instead of 23.22 grains. However, in order to prevent overnight speculation in gold at the expense of the United States Treasury, it is provided that there be a brassage charge of 1 per cent on all gold sent into the mint to be exchanged for dollars. Thus with the

announced value of a dollar at 23.34 grains of gold, those who sent gold in would actually get only about 99 cents, the other cent acting as a preventive of gold speculation. It is also provided that the maximum change in the gold weighting at any one time shall not be more than 1 per cent. The bill provides that all gold coin be called in and converted into bullion. After the adoption of the bill gold coin shall no longer be legal tender.

RESOLUTIONS IN REFERENCE TO STABILIZING THE DOLLAR AS A STANDARD OF VALUE.

CHAMBER OF COMMERCE, OF WATERBURY, CONN.

Whereas the value of our present dollar fluctuates according to the varying value of the fixed weight of gold of which it is composed; and

Whereas such fluctuations in the value are the cause of uncertainty, injustice, and social discontent; and

Whereas Prof. Irving Fisher has proposed a way to stabilize the value of the dollar so that its purchasing power in terms of the necessities of life will remain constant (thus standardizing the dollar as the yard, the pound, and the bushel have already been standardized); and

Whereas the plan of Professor Fisher appears to be theoretically sound and is considered practical by eminent economists, bankers, lawyers, and business men: Therefore, be it

*Resolved*, That the Waterbury Chamber of Commerce records itself as in favor of the enactment by Congress of such legislation as is necessary to put Professor Fisher's plan into operation; and be it further

*Resolved*, That copies of these resolutions be sent to the Connecticut Senators and Representatives in Congress and to Professor Fisher.

SCHOOLMASTERS' ASSOCIATION OF NEW YORK.

Inasmuch as the instability of the medium of exchange has caused almost continual price movements and changes in value of acquired wealth, which have frequently been attended by social disturbance: Therefore, be it

*Resolved by the Schoolmasters' Association of New York and vicinity*—

1. That the United States should take the leadership in an effort to establish a stable standard of value; and

2. That the standardized dollar, as advocated by Prof. Irving Fisher, consisting of a composite of goods, appears to this association entirely feasible and meets with our hearty approval as the best solution of the problem thus far proposed.

WILLIAM R. HAYWARD.  
ARTHUR F. WARREN.  
ALFRED C. BRYAN, *Chairman*.

BRIDGEPORT CHAMBER OF COMMERCE.

*Resolved*, That the Bridgeport Chamber of Commerce, recognizing the many evils that flow from the ever-changing value of the dollar, hereby calls upon Congress to enact such legislation, if it be feasible, as shall tend to make the dollar stable at all times in its purchasing power; and to that end it respectfully recommends the adoption, in substantial form, of the plan put forward by Prof. Irving Fisher for stabilizing the dollar by adding weight thereto or subtracting therefrom in accordance with the fluctuations of prices as represented by the indexed numbers.

*Resolved*, That this action of the Bridgeport Chamber of Commerce shall be transmitted to the Secretary of the Treasury, the Comptroller of the Currency, and all of the Senators and Representatives from Connecticut.

HOUSEKEEPERS' ALLIANCE OF WASHINGTON, D. C.

Whereas the Housekeepers' Alliance of Washington, D. C., believes that the fluctuation in the value or purchasing power of the dollar, which is merely a fixed weight of gold, not only works great injustice in long-term transactions

wherein money is borrowed or invested, but is also the far-reaching and often unsuspected cause of much dangerous discontent:

*Resolved*, That this association urge upon the Secretary of the Treasury the appointment of an expert commission to investigate the fluctuation in the purchasing power of the dollar and especially to propose some way in which our legal standard of value can be made more stable.

Washington Branch of the Association of Collegiate Alumnae adopted the same resolution on February 12, 1919. College Women's Club also adopted same.

SOCIETY OF POLISH ENGINEERS AND BUSINESS MEN IN AMERICA.

After a thorough discussion of the able lecture by Prof. Irving Fisher, the members of the Society of Polish Engineers and Merchants and their guests present at this meeting agree with him unanimously in the soundness of his theory and propose that the board of directors of the Society of Polish Engineers and Merchants take the necessary steps to foster this idea in Poland.

INTERNATIONAL PHOTO ENGRAVERS' UNION OF NORTH AMERICA.

Whereas great wars of the past have been followed by an inflation of currency and a depreciation in the purchasing power of the monetary unit; and

Whereas one of the influences affecting the present high cost of living is the depreciated purchasing value of the dollar: Therefore be it

*Resolved*, That the executive council be, and is hereby, instructed to make a study of the problem of establishing a dollar of stabilized purchasing power as it may be presented through legislative effort or otherwise during the year and to submit a report upon the subject at the 1920 convention.

COUNCIL OF NATIONAL DEFENSE, DISTRICT OF COLUMBIA FIELD DIVISION, FOOD PRODUCTION AND HOME ECONOMICS DEPARTMENT.

Whereas the members of the department of food production and home economics of the District of Columbia Field Division, Council of National Defense, in meeting assembled, have heard with interest and approval in the reports of representatives of three organizations, the Housekeepers' Alliance, the Association of Collegiate Alumnae, and the College of Women's Club, that a resolution has been adopted by them recommending to the Secretary of the Treasury the appointment of an expert commission to investigate the fluctuation in the purchasing power of the dollar, and especially to propose some way in which our legal standard of value can be made more stable:

*Resolved*, That we recommend to all women's organizations in the District of Columbia that the subject of stabilization of the dollar be included in their programs for the coming season, with the hope that similar action be taken by these organizations, and that a copy of this resolution be presented to the Secretary of the Treasury and to the members of the Banking and Currency Committee of the United States Senate.

SCIENTIFIC TECHNICAL SECTION, FEDERAL EMPLOYEES' UNION NO. 2.

Whereas the value of the dollar, as measured by its purchasing power in general commodities, has suffered continuous and alarming shrinkage since 1896, and especially since 1914; and

Whereas this has resulted in grave economic injustice to large groups of our population, particularly to salaried workers and wage earners unable to secure an equivalent increase in compensation, as well as to savings bank depositors, life insurance policyholders, and owners of Liberty bonds, and other long-term investments; and

Whereas there is little prospect of a decrease in the cost of living in the immediate future; and

Whereas the economic injustice due to the depreciation of the currency is the chief cause of the prevailing unrest and dissatisfaction; and

Whereas wage and salary adjustments can only correct part of this injustice; and

Whereas a resolution has been introduced into the House of Representatives by Mr. Husted, of New York, providing for the creation of a commission to investigate plans for stabilizing the purchasing power of the dollar, so that it will at all times and under all circumstances purchase approximately the same quantity of the necessities of life: Therefore, be it

*Resolved*, That the Scientific-Technical Section of Federal Employees' Union No. 2 indorses the purposes of House Resolution No. 278, and respectfully recommends that this resolution be amended so as to provide for a commission representing both Houses of Congress and that the resolution be passed at an early date.

ROCHESTER CHAMBER OF COMMERCE.

*Resolved*, That the Rochester Chamber of Commerce urges upon the President, Senate, and House of Representatives the earnest and immediate consideration through the agency of a national or international commission, or otherwise, of the stabilizing of the American dollar, by adjusting its gold content or by any other means, if available, which will effectively safeguard its purchasing power against further fluctuations.

WASHINGTON DEMOCRATIC STATE CONVENTION.

A resolution presented to the Democratic State Convention by former Congressman W. C. Jones, of Spokane, advocating the establishment of an "honest dollar" by congressional act was passed almost almost unanimously yesterday.

The resolution was as follows:

"Congress now has the power to give the people of this country an honest dollar with which to transact their business, a dollar which will not fluctuate in its purchasing power 1 per cent in a generation as measured by all the products of human industry, the things that our people have to sell and want to buy, a dollar which will be just both to the creditor and the debtor.

"We demand that Congress give us such a dollar."

An amendment to the Jones resolution by John L. Wiley, of Spokane, also passed. The Wiley amendment follows:

"We favor legislation to stabilize our currency so that the dollar may be maintained at an equal purchasing power."

SOUTHERN SOCIOLOGICAL CONGRESS.

*Resolved*, That the Southern Sociological Congress urge upon the Congress of the United States the favorable consideration of proposals to stabilize the purchasing power of the dollar, to the end that the many serious evils of a rapidly rising level of prices, commonly known as the "high cost of living," as well as the evils of rapidly falling prices, known as depression of trade, may in the future be avoided.

CHARLES A. ELLWOOD, *Chairman*.

FOREIGN TRADE CLUB OF SAN FRANCISCO.

[Similar resolutions adopted by San Francisco Sales Managers' Association and California Industries Association.]

Whereas our present dollar, consisting of a fixed weight of a given commodity, has in practice proven unstable and unsatisfactory as a standard measure of value; and

Whereas it appears that the dollar is the only important commercial unit remaining unstandardized; and

Whereas fluctuations in the purchasing power of the dollar cause great uncertainty in the business of foreign trade, inasmuch as the exporter is not able to prophesy with certainty at what price he will be able to purchase goods with which to fill his firm offers should they be accepted, nor to tell in advance at what price he will be able to sell his imports when they arrive; and

Whereas it appears that several plans have been proposed for stabilizing the dollar which are economically sound and in the interests of universal fairness and economic and business stability: Be it

*Resolved*, That the Foreign Trade Club of San Francisco urge upon the national political parties the insertion of a plank in their respective platforms pledging the appointment of a national monetary commission to study this important problem; and be it further

*Resolved*, That a copy of this resolution over the signature of the secretary and president of this club be sent to the Representatives and Senators now in the Congress of the United States of America from the State of California, and that copies thereof be sent to other commercial organizations on the Pacific coast.

MISSION BUSINESS MEN'S ASSOCIATION OF SAN FRANCISCO.

Whereas our present dollar, as defined by law as a fixed weight of a given commodity, gold, has by its fluctuations in purchasing power attested its unsuitability to be continued as our national unit of value; and

Whereas our national unit of value is the only commercial unit remaining unstandardized on a scientific basis; and

Whereas fluctuations in the purchasing power of the dollar in periods of decreasing prices cause business failures and unemployment, while in periods of increasing prices they cause profiteering and strikes, and in either case bring about social unrest and class hatred, with the harmful results of decreased production and positive injustice to the victims of the current change; and

Whereas the plan known as the Irving Fisher plan for stabilizing the dollar as a real standard unit of value appears to us as sound, practical, and feasible, and is sure to tend toward smoother and more equitable social and economic conditions: Be it

*Resolved*, That the Mission Business Men's Association favors the adoption of a law putting into effect the Irving Fisher plan; and be it further

*Resolved*, That copies of this resolution be submitted to our Representatives in the House of Representatives and to the two Senators from the State of California and to be given such other publicity as to the directors of this association may seem proper.

AUTOMOTIVE EQUIPMENT ASSOCIATION, CHICAGO, ILL.

Whereas fluctuations in the purchasing power of our dollar produce instability in commerce, decrease production, and bring about other undesirable conditions, be it

*Resolved*, That the Automotive Equipment Association urge upon the Congress of the United States the appointment of a national monetary committee to study the plans proposed for stabilizing the dollar and the enactment of such legislation as may be found feasible to that end.

NEW HAVEN CHAMBER OF COMMERCE.

*Resolved*, That the New Haven Chamber of Commerce, realizing the evils that flow from a fluctuating standard of value, hereby petitions Congress to enact legislation to stabilize the purchasing power of the dollar, and to that end we recommend the consideration of the plan proposed by Prof. Irving Fisher, of Yale University, as soon as the conditions of currency, credit, and exchange have sufficiently recovered from the immediate effects of the war to make its application feasible.

AGRICULTURAL CONFERENCE.

[Extract from resolution submitted by committee No. 1, agriculture and price relations, at the Agricultural Conference in Washington (before March 20, 1922), and adopted by the conference.]

*Resolved*, That this conference recommends that Congress appoint a special investigating committee to examine various plans for stabilizing the dollar, and to report any practical scheme which will minimize the manifest injustices between debtor and creditor and producing and consuming classes which result from these shifts in the general price level.

## AMERICAN FEDERATION OF LABOR.

The executive council has also caused an inquiry to be made into the practicability of stabilizing the purchasing power of the monetary unit and has given consideration to the plans furthered by Professor Fisher, of Yale University; Professor Sprague, of Harvard; and Professor Cassel, of Sweden. Unquestionably the whole question of inflation and deflation and their avoidance is becoming of increasing importance throughout the world. Every group in our political, social, industrial, and commercial organism is affected by the expansion and contraction of our currencies and credits. The lessening of cyclical variations in business activity is but another approach to the solution, only from a different point of view. The problem, however, is not domestic but world-wide. \*It is of the highest importance that the monetary systems of all countries that play an important part in international trade shall have a common standard of value and that that standard be of a stabilized purchasing monetary unit in order that international trade may be encouraged and exchange rates may be made stable.

Whether the problem is one of stabilizing the purchasing power and value of the dollar or of stabilizing the price of commodities, it is one of such proportions that consideration should be given it by the United States Government through Congress. Every influence and interest in our national life should rise above selfishness to a spirit of promoting the future welfare of all and to that end should cooperate with the National Government in finding a proper solution to this most urgent need of our time—a more stable medium or method of exchange. It is recommended that this course be approved.

Upon that portion of the executive council's report, under the caption "Stabilizing the unit of money," your committee recommends concurrence, coupled with the adoption of the executive council's recommendation.

The report of the committee was adopted unanimously.

## SOUTHWESTERN BUSINESS CONGRESS, TULSA, OKLA.

Whereas throughout the world to-day great evils are resulting from instability in the purchasing power of money, shown in the inflation and deflation of price levels; and

Whereas we in the Southwest have recently suffered grievously from deflation; and

Whereas reinflation is now threatening: Be it

*Resolved*, That the Southwestern Business Congress is opposed to inflation and deflation alike and is in favor of the greatest stability attainable. We therefore express our conviction that it is the self-evident duty of the Federal Reserve Board to administer the Federal reserve act in such a manner as will safeguard the Nation from inflation and deflation in the future; and we heartily approve all sincere efforts being made to find and apply the best legislative methods safeguarding the purchasing power of money.

## NEW ENGLAND ASSOCIATION OF PURCHASING AGENTS.

*Resolved*, That we, the New England Association of Purchasing Agents, record our earnest belief that in the interests of sound business and justice between contracting parties the purchasing power of the dollar should be stabilized either, as we believe has been shown to be feasible, by varying the weight of gold in the dollar or by such other means as may be found by Congress most expedient.

## NEW ENGLAND ASSOCIATION OF COLLEGES AND SECONDARY SCHOOLS.

New England Association of Colleges and Secondary Schools passed a resolution favoring investigation by Congress of plan for stabilizing the dollar in purchasing power, December 3, 1920.

