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A NATIONAL CURRENCY AND BANKING SYSTEM.

THE plan proposed by Secretary CHASE involves consequences so vast, that it should only be entered upon with the greatest deliberation. No incidental benefit to the Treasury should modify, in the least degree, the construction of a system which is to control the interests of a generation of business men. As a means of opening a new demand for government bonds, its legitimate effect could, at the most, only be moderate and gradual. And if that effect were forced by taxation upon existing currency, the derangement would be so great as to more than defeat the end. Such a plan would be feeble for present wants, while it might be potent for future mischief. The financial expedients adopted for the exigencies of war, whether an issue of demand Treasury notes, or whatever else they may be, should stand by themselves, like martial law, justified by the imperious needs of the hour, and to pass away with the return of peace. As war knows no law but necessity, the main question is, "What will most surely and promptly meet its demands with least future damage?" Not so is it with a system which is to reach on to the time when the peaceful industries of the nation shall again require the energizing influences of a sound currency. Better, far better, that the whole plan should be postponed to the calm consideration of a day of peace, than that one point of strength should be sacrificed to present convenience.

This country has never yet had a banking system that could stand the test, either of a general panic, or an adverse balance of trade. And when we see, as in the case of Illinois, the disastrous and wide-spread effects of the failure of local systems, how immeasurably important that, in laying

the foundations of a national organization, we dig deeper and build broader than we have ever done before. Let us look, then, for some solid foundation-stones that have been wanting in the fallen structures of the past.

To prepare the way for minor propositions, we would first deny one fundamental error, and affirm its opposite truth. The error is, "That accumulations of specie are so much unproductive capital;" the denial of which lies in the fact, that if specie is represented by only an equal amount of paper taken for it, it is not dormant, but is circulating, and performing all the offices of currency *by proxy*, which it could not do if it did not exist. The truth we would affirm is, that of all the machineries of national industry, whether shipping, or canals, or rail-roads, or telegraphs, *an indestructible currency is the cheapest*, measured either by the work it performs, or the ruin which is caused by its loss. It is the motive-power which drives all the others. A good currency cannot cost too much.

In the light of this essential truth I shall endeavor to establish the following propositions, as of vital importance to the formation of either a State or National currency and banking system:

I. Specie is the only adequate basis of that portion of the whole paper currency which may, under any condition of panic or of adverse exchanges, be returned for payment.

II. The specie which is held for the security and redemption of the bank-note circulation, should be *aggregated* at the commercial and financial centres of the country.

III. The average aggregate of specie so held, should *bear such a proportion to the total trade of the country* that it could pay any possible foreign balances against it without exhaustion, and always leave enough remaining to sustain the currency and credits at home.

IV. The most effective general safeguard is, not any inflexible and hampering law, but intelligence in the public, and constant accountability on the part of the banks, through weekly published statements.

1. As all debts are made payable in *money*, as money is named in all contracts, and is the representative of all values, nothing but money can satisfy the demand which arises in those periods of distrust when all faith in promises is gone. The sale of public stocks will, of course, produce money at some rate, but, at such times, the market is soon glutted, and the securities, however good, depreciate and fail as a reliance. A *vital fact* in this question is, that the *forcing of securities upon a panic-stricken market aggravates the panic beyond all other causes*. The better the securities are, the more *complete* and *universal* is the destruction of market values, by the forced sale and consequent depreciation of them. If you have two hundred millions of bank-note circulation, secured by United States bonds, and in a sudden panic you throw ten millions of these upon the market, and they fall to 50, all other market values simultaneously fall in the same proportion.

This occurred in 1857, when, in a sound state of the trade of the country, mere panic sales forced New-York State stocks from 110 down to 70, and the State security system was totally broken down. A suspension of specie payments quickly followed, and the deposit banks of New-York came to the rescue of the country banks of circulation so

promptly, by taking their notes on credit, that the fact that the system had failed and demonstrated its own imperfection, was hardly recognised. It, nevertheless, was a fact, and a momentous one in its bearing on the mode of organizing a national currency. For if the market could not take enough of New-York State stocks (unsurpassed in real value) to redeem the limited bank-note currency secured by them, what would be the result when the stock security of a national circulation of \$200,000,000 should be thrown upon the same market?

The conclusion, then, is, that neither bonds and mortgages, nor State stocks, nor government bonds, nor British consols, nor any other form of property, can be safely made the security for the bank-note circulation, except for that portion of it which neither panics nor balances of trade can ever drive home for redemption, and which, therefore, (although nominally payable on demand,) may be regarded as a permanent loan from the people.

To this conclusion more than a century of experiments and failures have driven the statesmen of England, and it is now fully recognised and embodied in the organization of the Bank of England, and established by its successful working.

To this conclusion our own history and failures impel us, and will, till we accept it.

2. The specie or money which is held for the security and redemption of the bank-note currency should be *aggregated* at the commercial and financial centres of the country.

This is and has been the case in the actual working of all the existing banking systems of the States. The country banks of New-England, of New-York and of the whole interior, rest upon their deposits in the city banks, as the means of redeeming their circulating notes. Most of their redemptions, (perhaps 99-100,) are actually made by drafts upon those city bank deposits, and as those deposits rest upon the specie in the city banks, that specie, at these centres of trade, is practically the real basis of the bank-note circulation of the whole country.

The modicum of coin which is kept in the country banks serves to furnish change to the people, and, occasionally, for the redemption of notes; but its relation to the security and redemption of the paper currency is of trifling importance.

It follows, therefore, that any law requiring the country banks of circulation to hold fixed per centages of specie would be contrary to the teachings of experience. Such a law would be evaded by the unsound banks. In the case of the sound banks, it would place the specie where it would be comparatively useless and unavailable. The specie is not wanted in the banks of the interior; and if it were, to compel them always to hold it, would be to forbid its *use*. Such a law would dispense with the heart, and require the hands and the feet to keep their separate supplies of stagnant blood.

We repeat, then, that the specie basis of the paper currency should be held—subject to actual use—at the *centres of commerce and finance*.

3. The average aggregate of specie which should be held at the commercial centre should bear such a proportion to our whole trade that it could pay any probable foreign debit balances without exhaustion, and always leave enough remaining to sustain the currency and credits at home.

The non-recognition of this principle cost the nation the terrible experience of almost universal bankruptcy, and the long and painful struggle which followed the collapse of 1836. Previous to that year the country had run up balances of trade more than four times greater in amount than all the specie held by all the banks in the United States.

Again, so lately as 1857, the banks of New-York, holding about \$12,000,000 of coin, which was then nearly their average stock, were able to bear a reduction of only about \$3,000,000, being about *one per cent.* of the trade of the country each way, before they were driven to suspension. From that and many previous experiences, they have wisely adopted a much larger specie-basis, and by the strength thus attained, they have supported the confidence of the nation and the finances of the government through a crisis which, in former years, would have plunged it into bankruptcy.

The value of a stock of specie proportioned to the trade of the country, is strikingly shown in the action of the Bank of England, which has repeatedly paid foreign balances of twenty-five or thirty millions of dollars, with scarcely a rise in the rate of interest, or any disturbance of the course of credits and business.

In view of the foregoing principles, the following plan for a national currency and banking system is suggested :

1st. All future bank-note currency in the United States shall be issued in the manner following: The United States treasurer (or banking department) shall furnish to banks or bankers circulating notes equal in amount to ninety per cent. of the market value of United States bonds, which such banks shall deposit as security for such bank notes, and such banks shall keep their notes secured by an average excess of ten per cent. in United States bonds, at their market value.

2d. The aggregate amount of bank notes which may be so issued by the United States banking department shall not exceed an amount which, added to the amount in circulation under State laws, would be equal to, say \$200,000,000, that being about the average amount which experience shows that the country will hold.

3d. The bank department shall hold, in sub-treasury or in special deposit, in specie, an average sum equal to twenty per cent. of the bank notes issued to the banks upon the pledge of United States stocks.

4th. First, the bank department may, at the discretion of the Secretary of the Treasury, use any portion of the twenty per cent. provided for in section second, or any specie in the treasury, to buy from the banks the United States bonds pledged with him by the banks, at ten per cent., or more, below the price at which such bonds were pledged; (that is, when the margin of security is exhausted;) and, second, may also sell again the bonds so purchased whenever they shall be saleable at ten per cent. more than cost.

5th. In addition to the notes which may be issued on the pledge of United States stocks, the bank department may issue to the banks bank-notes equal to the amount of specie which may be pledged with it as security therefor, such specie to belong to the banks, and to be held apart from the twenty per cent. provided for in section third, and such issue, so secured, may be independent of the limitation in section second.

6th. All the banks in the United States, whether under State or national laws, shall make and publish "weekly statements," as is now done by the New-York city banks.

Upon the above suggestions we would add the following

NOTES.

In 1854, under a sudden drain of specie, a violent and ruinous panic occurred, and a suspension of the banks seemed imminent. At the urgent solicitation of the bankers and merchants, the Secretary of the Treasury resorted to every lawful means to release the coin locked up in the sub-treasury, and, by a happy liberality of construction, several millions of its own bonds were purchased by the government *with coin*, and at a very large premium. The specie was released, and the banks and the community were saved. What wrought so beneficially then, it is now proposed, in section fourth, to incorporate, as a conservative principle, in the proposed national banking system. This outside and ultimate reserve is wanting in the Bank of England, nor could it be introduced there without a fundamental change. The funds of the government are already deposited with it; consequently, the government has no resource upon which it can draw to aid the bank by the purchase of consols from it when its specie reserves are exhausted. So far from this, the drafts of the government in times of pressure only aggravate the difficulty. With us, on the other hand, the machinery for the occasional purchase of government bonds *in aid of the banks and the public*, is already so organized in our admirable sub-treasury, that it has "gone itself."

The fifth section, authorizing the banks to receive bank notes equal to the specie deposited as security therefor, turns what has been a point of weakness in all the State systems into one of strength. The banks have excused themselves from keeping a full supply of coin on the plea that their notes were already secured by State stocks, and that they could not afford to secure it again by holding unproductive coin. This provision relieves them from carrying so much dead capital, and invites the increase of their specie by giving them its *equivalent* in bank notes; while at the same time it multiplies the power of the specie as a basis of credits and confidence by *aggregating* it in the bank department, where *it may be measured and known, and where it may be always available.*

It is believed that a system embracing the above principles, including, of course, all the best details of the New-York State system, such as redemption at the commercial capital, &c., would have at once more strength and more flexibility than even the Bank of England.

The Bank of England may be considered absolutely secure as a bank of issue and circulation, and, so far, a safe model; but it is also, on a great scale, a bank of deposit. But here, as before intimated, it is weak. Having nearly its whole capital in the government bonds, its chief resort for any heavy and sudden demand upon its deposits (after its reserve of notes is exhausted) is in its bills receivable. If these are called in too rapidly, the distress produced is so great that the government must interfere, or the merchants or the banks must fail. This has occurred at several periods since Sir ROBERT PEEL's charter of 1844 was adopted.

In the United States, however, we have in New-York alone a strong

body of deposit banks, with a paid up capital of seventy millions, and a separate and large supply of coin. Supplement these by well fortified banks of issue, resting independently on their own specie and securities, and we have an unequalled system.

And from this last statement there is one important inference. The government should not imitate the error of England, and weaken its own system, by using the banks of circulation as banks of deposit. If any departure is made from the most solid thing in all our building, *the sub-treasury*, the funds of the government should be placed only in the legitimate deposit banks of the great cities, whose heavy capitals alone could afford a reasonable guarantee for them. But even then they would be an element of weakness and danger.

The money belonging to the government, and wanted for its expenditures, *is not a legitimate basis of banking*. Government deposits are a disturbing element in the affairs of the banks and of the people. If placed in the banks, they, of course, go to swell the loans, and then the apprehension of sudden and heavy drafts introduces fear and trembling into our daily business. These drafts always come heaviest and most imperative when they can least be borne. When trade languishes and imports decline, then, of course, the revenues fall off; then it is that government wants, and must have, its reserved funds; but then, also, business is depressed, and merchants are "short," and are most distressed by the calling in of loans. In a word, government deposits *stimulate trade and credits when they already tend to excess, and fall on them like a millstone when they are depressed*. If they were forced upon us by some malignant power, they would justly be regarded as a curse. How different the effect when, as of late years, in times of distress, the government, with paternal hand, unlocks its solid reserves of coin, and makes its heaviest disbursements just in the crisis of the people's sorest need.

As an exceptional act, and as a measure of reciprocal service, nothing could be more just than that the government, having borrowed nearly all the capital of the deposit banks of the three chief cities, should leave with them a large deposit, to aid them in carrying on profitably their ordinary business of discounting mercantile paper. But that should be done with a clear purpose to make the deposit *permanent* until the banks are relieved of their patriotic burden. And to that end, large reserves should be kept in the sub-treasury; or, if government paper is resorted to, the disbursements should be so managed as to leave, as nearly as practicable, a uniform balance in the banks.

New-York, January, 1862.

A GOVERNMENT BANK.

It is now a well-known historical fact, that in the infancy of our Republic, we were but little respected by foreign nations, and by some scarcely acknowledged, *until we had established a sound and efficient national system of finance*. The Bank of the United States, exhibiting the profound wisdom of its projectors, tended greatly to establish, not only stability of character at home, but to command respect abroad.

A NATIONAL AUTHENTICATED CURRENCY.

THE PLAN STATED—ADVANTAGES TO THE GOVERNMENT—ADVANTAGES TO THE PEOPLE—A UNIFORM CIRCULATING MEDIUM—NATURAL EXCHANGES—REGULATION OF THE EXCHANGES—SECURITY FOR THE BANK NOTES—SAFER THAN THOSE OF THE BANK OF ENGLAND—ADVANTAGES TO THE BANKS—SOLVENT BANKS PROTECTED AGAINST THE INSOLVENT—THE CURRENCY MADE LESS FLUCTUATING—THE BANKS MADE MORE SECURE—OBJECTIONS TO THE PLAN—IN-OPPORTUNE—ITS BASIS NOT PERMANENT—TAKES CAPITAL OUT OF TRADE—ALLEGED TAMPERING WITH THE CURRENCY—CONCLUSION.

THE Secretary of the Treasury, in his report made to Congress at the commencement of the present session, proposes a plan which, in his opinion, will secure to the people of the United States a uniform currency, obviate many defects of the present system of State Bank issues, and, at the same time, afford assistance to the general government. It is as follows:

“*First.* A circulation of notes bearing a common impression, and authenticated by a common authority.

“*Second.* The redemption of these notes by the associations and institutions to which they are delivered for issue.

“*Third.* The security of that redemption by the pledge of United States stocks, and an adequate provision of specie.”

This plan commends itself to our favorable regards by its simplicity and evident feasibility; but will it answer the expectations of the Secretary? Is it expedient? These questions we propose to consider.

In carrying out this plan, if we understand the matter aright, the national treasury will furnish notes of various denominations, “authenticated” by the certificate of the department, that the same are secured by a deposit of United States bonds. These notes will be made with certain blanks, which the banks receiving them can fill out, making themselves responsible for the payment over the signatures of their officers.

In order to obtain these “authenticated notes,” the banks must deposit an equal amount of bonds with the government, to ensure final payment, if they fail to redeem them at their own counters.

For example, if we suppose the Merchants’ Bank, Boston, has a usual circulation of \$400,000, and now wishes to come into the new system, it must, for that purpose, purchase \$400,000 of United States bonds, pledge the same at the treasury office, and receive \$400,000 of the authenticated notes for circulation.

These it will loan to its customers just as it previously did its own notes. The bank drawing interest on its United States bonds, of course, and also the interest on its circulation, and the income it derives from both these sources goes to swell the dividends of its stockholders.

The condition of the Merchants’ Bank is now, in no essential respect, different from what it was before the change, except that it has loaned the government \$400,000, instead of loaning the same amount to its ordinary customers; and the operation cannot affect the profits of the bank, unless it actually got a higher net rate of interest from its customers than the government pays on its bonds.

If this be true, can the Merchants’ Bank, or any other placed on the same footing, have any objection to the change?

It may be insisted that the bank could obtain, at least at times, if not always, a higher rate of interest, by charging exchanges on loans to customers, than the interest the government allows. But if the fluctuations in the currency are to be as frequent and violent in future as in the past, as, without some change, they must be, will the average net amount, for a series of years, be greater than what the government bonds will pay? We think not, because the banks often make heavy losses from the bankruptcy of their customers, occasioned by the periodical explosions of the currency.

ADVANTAGE TO THE GOVERNMENT.

While the plan, then, in nowise, as we believe, injures the banks of the country, by curtailing their profits, it will confer great advantages on the government.

For, *first*. If the circulation of the country is to be based entirely on national stocks, then there will be, of course, a demand for those stocks created equal to the whole of that circulation; say from \$150,000,000 to \$200,000,000. This will aid the government so far—a circumstance of much importance in this great crisis of difficulty and danger.

Secondly. The connection which will be thus created between the banking institutions and the government will strengthen both. It was a grand stroke of policy when the British Parliament authorized the savings institutions of the empire to invest their funds, on advantageous terms, in the national stocks. Before that time the holders of the public debt amounted, if we remember aright, to less than three hundred thousand; now, by the investments of the savings banks in government securities, the virtual holders of the public stocks amount to nearer three millions. What better calculated to assure the final payment of the public debt? What better adapted to prevent internal commotions that might overthrow the government?

So would it be here. By the arrangement proposed, an immense number of persons, in all parts of the country, and in all the various relations of civil and social life, would be interested in the preservation of the public credit. This is a circumstance which, in the present and prospective condition of the nation, ought not to be disregarded.

By this plan, then, the government gets *assistance and sympathy*.

A UNIFORM CIRCULATING MEDIUM.

What do the people gain?

1st. They are insured a uniform circulating medium, the soundness of which will be known and admitted everywhere, and which, as it is receivable for all government dues, except customs, will be current in all parts of the country.

The bills of the banks of Maine will be current in Missouri; those of Iowa in Vermont. Standing on the same level, all will pass equally well everywhere. This alone will be an incalculable advantage, and secure a wide circulation for this kind of currency. With these notes, no matter where issued, a person will be able to travel in all parts of the nation, and purchase property or discharge contracts.

NATURAL EXCHANGES.

2d. As a consequence of this, all those exorbitant and uncertain rates of exchange that have heretofore existed, will be done away with. Th

will relieve the productive classes of an immense burden, though it will doubtless very much reduce the incomes of those who have heretofore dealt in *uncurrent bank notes*.

The natural exchanges of the country will still exist, as they ought, and these authenticated notes will, at certain places and under certain circumstances, be at a small discount. But, then, they will as often be above par, for gold, as below it. All domestic exchange, under this system, would be merely the real natural difference between the value of funds in different localities, under the varying circumstances of trade; but the high rates we have been familiar with, of five, ten or twenty per cent., would be hereafter entirely unknown. They can never be greater than the expense of transporting the gold, while the banks maintain specie payments.

REGULATION OF EXCHANGES.

3d. This system of currency will accomplish what, by many people, has been thought a great object, viz.: it will "*regulate the exchanges*" of the country. More properly speaking, however, it will regulate the currency, and that is all that is, or ever has been, wanted. To talk of "regulating exchanges" is as sensible as to talk of regulating the rising and setting of the sun, or the ebbing and flowing of the tide. Exchanges exist by the laws of trade; they indicate where the balance of trade is, and that is a point of great importance to all business men; and hence exchanges should never be interfered with by government or banking institutions. It was one of the greatest objections that could have been brought against the late United States Bank, that when it was at the zenith of its power, it did literally "regulate exchanges," that is, it established artificial ones everywhere, and thus not only imposed a great tax on the business community, but destroyed the true index of the balance of trade.

For example, it would charge two and a half per cent., perhaps, at Boston, for a check on New-Orleans, and, at the same moment, charge at New-Orleans the same rate of exchange for a check on Boston. Now every intelligent man knows that these two exchanges could not co-exist, that one or the other was fictitious.

Ever since the closing of the national bank, exchanges have regulated themselves most satisfactorily and economically, *except when disturbed by the depreciated currencies*. The authenticated currency will remove all danger of depreciation, and, therefore, will insure universally satisfactory exchanges.

SECURITY FOR THE CIRCULATION.

4th. Not only will the question of exchange be placed on a proper basis, but all danger from holding bank notes will be obviated. There will be a well-deserved confidence placed in this kind of currency. The losses which have, in times past, been sustained by bill-holders, have been immense, and have fallen mainly on the poorer classes. It has been satisfactorily ascertained, by careful examination, that the people have suffered to the amount of more than one hundred millions of dollars by broken bank notes, since our present system came into being.

Under the proposed arrangements there can be no such losses; and after a short time, when the public have become accustomed to this kind of currency, and tested its solvency by their experience, these notes will

not only secure a free and universal circulation, but they will be hoarded; that is, laid by for future use, with as much confidence as the specie itself. This will increase the amount of specie that may be deposited in the banks.

SAFER THAN THE BANK OF ENGLAND.

One of the best features of the Bank of England is, that the government is always indebted to it for an amount which, added to the specie in its vaults, at any given time, will be at least equal to its whole circulation. The bank holds £14,000,000 of the government securities as a permanent investment. By the act of 1844, (known as Sir ROBERT PEEL'S act,) the bank is allowed to issue this amount of its own notes for circulation, without any specie wherewith to redeem them; but for all over that amount it must hold an equal amount of specie or bullion in its vaults.

This is, of course, well known to all, and has the effect of giving the British public, as well as the whole commercial world, great confidence in the Bank of England. Even prior to the act just mentioned, the fact that the government was indebted to the national bank for an amount equal to its whole capital, has been conducive to the high credit which the bank has been able to maintain.

"As good as the Bank of England" is an old adage with which we are all familiar. Now, if we can establish a currency which shall, before the whole world, be upon as safe a basis as the notes of this celebrated bank, we shall have accomplished a most desirable object. The plan of the Secretary will do more than that. It will make the currency of the United States more absolutely secure than that of the British bank, because, in our case, the government stocks, which we assume to be as good as the British national debt, and as likely to be paid, are absolutely pledged for the payment of the notes of our banks, while the public stocks held by the Bank of England are not specifically held for the payment of its notes, but for the discharge of all its liabilities; and its deposits are often, perhaps generally, as large as its circulation. The government stocks of the Bank of England are only a part of its assets, but, by the plan of Secretary CHASE, the stocks of the American government are held in absolute pledge for the redemption of these notes, and no other purpose, and are no part of the assets of the government or the banks. They are the *bona fide* property of the bill-holders until the notes are paid in full.

As matters now are, the weakest and least solvent banks (as intimated in the Secretary's report) issue the greatest amount of circulating notes. They make it their chief business, in fact, to manufacture and put out as large an amount as they can, by any contrivance, keep in circulation—5, 10, 20, 40 dollars for one dollar in specie! The Illinois banks had, for example, on the first January, 1860, a circulation of \$8,981,723; specie on hand only \$223,812, or forty dollars to one, to say nothing of \$697,037 they owed besides for deposits.

Such a currency, whether forty to one or ten to one, is clearly inconvertible, notwithstanding the assumption of its being "redeemable on demand, and therefore as good as specie." Experience, sad and oft-repeated, has taught us that the notes of such banks are really inconvertible. They may, indeed, be gradually withdrawn from circulation, if sufficient time is allowed therefor; they may be taken into bank in payment of notes due from individuals, and thus cancelled; but if they

are returned faster than the bank can thus dispose of them, it must suspend; such has always been the case, and as soon as the suspension takes place the bill-holders are liable to suffer.

Under the proposed system this danger of loss is obviated; for, although the bank may have actually become insolvent, no one need make a sacrifice on its notes, because the government holds collateral security for them, and is, moreover, *pledged to receive them* at par for all dues, except customs.

These considerations go to show that this "authenticated currency" will be the most reliable of any mixed currency in the world. This will elevate our banking system, not only to a level with the best banks of other countries, but above them.

ADVANTAGE TO THE BANKS.

By the proposed arrangement, solvent and well-conditioned banks will be relieved of a great and vexatious responsibility, which has heretofore been imposed on them by the weak and ill-conducted ones, whose circulation they have felt compelled to sustain, for fear that if it were dishonored a panic would be created, and a general run upon all the banks. The banks of New-York, Boston and other large cities are but too painfully familiar with cases of this sort.

Another advantage will be, that the new system will prevent the creation, in future, of merely fictitious banks. Many banks have heretofore, as already intimated, been got up without any real capital whatever. If required, as a condition of issuing circulating notes, (which is the principal object of such banks,) they are obliged to deposit United States stocks to an equal amount, in advance, such banks could not be established, for nothing but real money would purchase the necessary stocks, and thus the easy multiplication of banks without capital would be prevented.

This would make the whole system more profitable and safe; a result which all sound banking institutions will look upon with much favor.

CIRCULATION LESS FLUCTUATING.

Again, by the new policy, the circulation of the banks will be rendered more uniform; that is, less fluctuating.

The Secretary proposes that all the banks that receive the authenticated notes shall keep "an adequate provision of specie."

At present no regulation exists in regard to this matter in most of the States; and in all, except three or four, the banks can issue their notes without any regard whatever to the specie in their vaults. This has ever been the great cause of the frequent and disastrous fluctuations which have inflicted such manifold calamities upon the people. The New-York city banks have become so satisfied of this, that they have entered into a mutual agreement, which compels them to keep at least twenty-five per cent. of specie for all their immediate liabilities. This measure on the part of the metropolitan banks is a wise one, but necessarily too limited in its operation to affect the greatness of the circulating medium of the country; but a suitable regulation made by Congress would, of course, effect the desired object, and place the whole currency of the nation on a comparatively safe and reliable basis. We say *comparatively safe and reliable*, because we cannot reasonably expect that

our currency will be reformed to such an extent, especially when the nation is making a great struggle for its existence, as to make the circulating medium perfectly sound and unfluctuating. That could only be done by compelling the banks to keep a larger amount of specie, in proportion to all their *immediate liabilities*.

It is no sufficient objection, that even under the system proposed the banks might extend their operations so far as to be obliged, ultimately, to suspend specie payments. That may be true, but that is no more than they are now liable to do, as we know by oft-experience; besides, as we have before shown, they will be far less likely to run into excesses under the new than the old system.

The condition of all the banks of the Union, on the 1st day of January, 1860, was as follows :*

Circulation,.....	\$ 207,102,477
Deposits,.....	253,802,129
	<hr/>
Total,.....	\$ 460,904,606
Specie held by the banks at same time,.....	83,594,537

Equal to about twenty cents on the dollar.

Now we do not deny, that although the whole circulation were secured by United States stocks, and those stocks were at par, the banks might be compelled temporarily to suspend, if they had no larger proportion of specie to meet immediate liabilities than indicated above, because it would obviously be impossible to meet the redemption of their notes with specie, to say nothing of a still larger amount of deposits, which, in the view of all business men and bankers, are as truly *currency* as the circulation, and for which the demand for specie will be more instantaneous and pressing.

It is with banks as with individuals: if they owe five or ten times as much on demand as they have the immediate means of discharging, they may be obliged to suspend payment, though they have the ultimate ability of paying three times as much as they owe. But the liability of suspension will be just in inverse proportion to specie on hand; the greater the specie basis the less the danger.

However desirable it might be, that the amount of specie in banking institutions should be so large as to prevent all possible danger of suspension, the present is certainly not the time to attempt such a reform. In time of war, credit money, in one form or another, *must be resorted to*. Wars, in modern times, are carried on by credit. They cannot be conducted otherwise. So enormously expensive are they, so rapidly do they consume the wealth of a nation, they would be brought to a speedy close if governments were obliged to pay as they go.

This has been the case ever since the accession of WILLIAM and MARY to the throne of England. The Revolution of 1688 was a great financial, as well as political revolution. WILLIAM introduced FUNDING PAPER MONEY and INDIRECT TAXATION; and, by these instrumentalities, the wars of Christendom have been mainly supported ever since. The American Revolution was carried on by "continental paper money."

* MERCHANTS' MAGAZINE, vol. 43, p. 336.

The wars of the French Revolution had been impossible, without "ASSIGNATS, mandates," &c., &c., and, to enable England to cope with NAPOLEON, her national bank went into suspension of specie payments, for more than twenty years.

The present is not the time, therefore, to dispense with credit money, however great an evil, in its nature, it may be. It is rather the only exigency in which the use of such money is at all defensible.

CREDIT MONEY IS WAR MONEY. It originated in war, and has no utility, except as a temporary necessity of a state of war. We cannot, then, attempt a reform, that could only be successfully carried out in a time of profound peace and by a gradual process. We must use it, and make the best and the most of it, until peace has been restored. If so, is not the plan we have been considering the best above all others that have been proposed; the most eligible and most easily carried into operation?

The Secretary of the Treasury is certainly not responsible for our present banking system. He does not even indorse it. He says, "*If a credit circulation, in any form, is desirable, it is most desirable in this.*" That is the point; and we cannot but think that all intelligent men will concur in this opinion. It is certainly possible to improve and strengthen a weak and imperfect system, and that is just what is now proposed.

OBJECTIONS TO THE PLAN CONSIDERED.

We will conclude, by briefly noticing certain objections to the plan of the Secretary :

1st. "That the present time is inopportune." We think nothing can be further from the truth. The writer has been familiar with all the phases of the currency and money market for the last thirty years, and has never seen a time more favorable than the present.

In 1842 there was a period when the condition of the currency and the country was such as to make a change like that now proposed quite feasible; but, with that exception, there has been no time which, on all accounts, presented so favorable a concurrence of circumstances as the present.

Our banks have an unusually large amount of specie, and there is also a large amount in the country held outside the banks. Money for all commercial purposes is very plenty, and likely to remain so. Owing to the financial necessities of the government, growing out of the war, it has become expedient that the banks should suspend specie payment, but that circumstance, instead of being an argument against, is, in truth, a valid reason in favor of the measure; because the final payment of all the circulation being guaranteed, a very extensive credit to bank notes will be secured, a thing greatly to be desired, under present circumstances, for the banks need the best of credit, as well as the government.

Besides, if the plan of the Secretary be not adopted, is it not certain that a new crop of fictitious banks will spring up all over the Western States, as unreliable as the last; and the country be exposed to greater disasters than those of 1859-'60? Will not the land be flooded with worthless paper money?

NOT PERMANENT IN ITS BASIS.

Another objection made is, that "the new currency, being based on the government debt, it cannot be permanent, as the debt will be some time or other paid off, and then the system must be changed." But this seems an idle objection. If the war closes by next July, an event more to be desired than expected, the country will be left with a debt of over *five hundred million dollars*.

In addition to that debt will be an immense amount of *claims* on the government, not included in the Secretary's report, but which will inevitably be made on the treasury at the close of a war so extended as the present.

A large pension list, created by the war, will also be for a long period a heavy charge on the national treasury. And it is as certain as any thing can be, that instead of a standing army of ten to fifteen thousand, as formerly, we shall have one of fifty or a hundred thousand, with naval armaments in proportion.

In addition to all these changes we must meet the ordinary expenses of government, which can hardly fail to be greatly enhanced, and also the annual interest on the national debt.

With this immense aggregate of expenditures, and a revenue contracted by the limited consumption of foreign merchandise, which the impoverished condition of the country must occasion, how soon shall we find ourselves out of debt? In thirty years? If so, we shall be very fortunate; and until that time arrives we shall not be wanting in national stocks on which to base the security of our circulation.

Besides, if we suppose a much shorter time, could not a provision be made for a change of securities, on a gradual relinquishment of the system, if that was deemed expedient?

If the "authenticated currency" is not interrupted until the United States is again out of debt, the present generation need give itself little uneasiness in regard to the matter.

TAKES CAPITAL OUT OF TRADE.

Again, it may be objected that this plan takes bank capital out of the hands of the business community and puts it into the public treasury.

Granted; but will that be any disadvantage? Recollect, the government must have the money, the use of the capital, from some quarter. That is not a matter of choice. Why not take a part of it from the banks?

We think there are many cogent reasons in favor of such a course. A given amount of capital in the banks will increase the general credit of the country more than three times as much as that amount in private hands.

In 1860 we had 1,562 banks, with an aggregate capital of \$421,880,095. All these were competing for the bankable paper of the country. What must be the natural consequence of such a state of things? Evidently just such an insane extension of credit as we have witnessed. These banks had, at the time mentioned, extended their own credits above their available means *three hundred and seventy-seven millions of dollars*. What could result from this but a reckless extension of all other credits,

until they became so unwieldy as to break down by their own weight. This stimulus of ordinary credits by the influence of bank credits is the bane of the business world. That is everywhere admitted, and this is caused by the faults of our banking system, which allows the banks not only to loan their legitimate capital, but an immense amount of mere credit besides. The larger the capital of the banks, then, the more extended will be the general credits of the country.

Any term of credit on merchandise over four months, is a damage alike to buyer, seller and consumer; yet it is well known that our credits are extended to six, nine, twelve and eighteen months. This is absurd in the highest degree.

The tendency, then, of withdrawing capital from the banks would be to shorten mercantile and general credits; and is not that a consummation greatly to be desired?

There is still another reason why capital may be advantageously taken from the banks by the government, and that is, that owing to the disturbances of trade, which a state of war occasions, there must be, for years to come, less necessity for bank capital for business purposes. At the present moment there is a surplus of it, and such would certainly be the case for a long time to come, were it not for the pecuniary wants of the government, by which the banks are enabled to make large and profitable loans.

In view, then, of the foregoing consideration, the force and justice of which, we think, business men and capitalists will admit, the objection that the withdrawal from the banks of a part of the capital or funds which the government must have from some quarter, injures the public, will fall to the ground; besides, it is undoubtedly true, that if the banks can employ any more capital to advantage, it will readily be put into those now existing, or new ones will be created.

ALLEGED TAMPERING WITH THE CURRENCY.

Lastly, it is sometimes asked, in the way of objection, "why tamper with the currency at the present time, and when the country is in such distress and peril?"

We reply to this, that the plan of the Secretary is no "tampering with the currency" (a favorite cant phrase) at all. It does not change its generic character in the least, or necessarily restrict or increase the circulation of the banks. It hampers them in no way, nor gives the government any power over them whatever. Congress simply makes a general enactment to which the banks must conform, but it gives no man, or body of men, any control over their operations.

It merely asks them to loan the public treasury a given sum, instead of loaning the same amount to individuals, and upon the strength of that loan to base the security of their own circulation. It provides A UNIFORM NATIONAL CURRENCY, NATURAL EXCHANGES and SECURITY TO BILL-HOLDERS. This it does in a most unobjectionable manner, interfering with no moneyed interest or industrial pursuit.

CONCLUSION.

The foregoing remarks are offered with great deference to the opinions of others, and with a sincere desire to promote the best interests of the government, the people and the banks.

To the latter institutions the writer feels under high obligations, as a citizen, for the prompt and patriotic manner in which they have responded to the calls of the government in its hour of need. They certainly deserve the gratitude of the public, and all the legal protection and favor which the welfare of the country and their own true interests may demand. We hope they will receive it. If the plan of the Secretary is open to objections, which the writer has not discovered, he earnestly hopes they will be stated by those having the ability to do so. The question should be fully and frankly discussed, and with the most anxious desire to secure the best interests of all concerned in the important measure proposed by the Secretary of the Treasury.

There are three parties, but there is only one interest. That which is truly most advantageous for one, must be, in the long run, most desirable for all. It is no time for wrangling about theories, or making doubtful experiments, but it is a time when the nation is called upon to test its utmost financial capabilities; and the great question is, how can that be most efficiently done?

GOLD AND SILVER.—Mr. LOWNDES, in his report on the Bank of the United States, said, in 1819: "The great object of the government, in chartering the bank, was to provide a currency which should have that degree of stability and uniformity in its value which is required by the interests both of our commerce and revenue. A currency equally valuable at every place and every time, cannot be provided by human wisdom. The nearest approach to this object has been generally supposed to be afforded by the employment of gold and silver as the measures of value."

NATIONAL CURRENCY.—Mr. McDUFFIE, in his "Report of the Committee of Ways and Means," April, 1830, says: "The power to *coin money and fix the value thereof*, is expressly and exclusively vested in Congress. This grant was evidently intended to invest Congress with the power of regulating the circulating medium. Coin was regarded, at the period of framing the Constitution, as synonymous with *currency*, as it was then generally believed that bank notes could only be maintained in circulation by being the true representative of the precious metals."

Mr. MADISON, in his annual message of December, 1816, concedes the right of Congress to control the issues of paper money: "But," says he, "for the interest of the community at large, as well as for the purpose of the treasury, it is essential that the nation should possess a currency of equal value, credit and use, wherever it may circulate. The Constitution has intrusted Congress, exclusively, with the power of creating and regulating a currency of that description. The Bank of the United States, under auspices the most favorable, cannot fail to be an important auxiliary."

INTERNATIONAL GENERAL AVERAGE.

I. AUTHORITY IN LAW USUALLY, BUT NOT ABSOLUTELY, A TEST OF CORRECTNESS. II. A WIDE RANGE OF PRECEDENTS NECESSARY IN MERCANTILE LAW. III. INCONSISTENCIES NOW EXISTING IN THE PRESENT GENERAL AVERAGE PRACTICE OF DIFFERENT COMMERCIAL NATIONS. IV. PROPOSED REMOVAL OF THESE INCONSISTENCIES BY THE ASSOCIATION FOR THE PROMOTION OF SOCIAL SCIENCE. V. WHAT STEPS THEY HAVE TAKEN AND WHAT THEY PROPOSE TO DO. VI. DIFFICULTIES IN THE WAY. VII. REFORM NOT NEEDED IN AMERICAN PRACTICE. VIII. OUR CUSTOMS IN THIS RESPECT BASED UPON A WIDE FIELD OF PRECEDENTS. IX. THE NATURE OF ENGLISH EXCEPTIONS AND THE ARGUMENTS UPON WHICH THEY ARE FOUNDED. X. AMERICAN REASONINGS UPON THE SAME POINTS, AND THE AUTHORITIES WHICH SUPPORT THEM. XI. CAUSE OF THE INCONSISTENCIES IN ENGLISH PRACTICE. XII. DANGER OF LIKE CAUSES PRODUCING A SIMILAR EFFECT IN THIS CITY TO GREAT DETRIMENT OF COMMERCIAL ENTERPRISE.

“ALL erroneous opinion is inconsistent, and all ungrounded opinion transitory,” says Mr. RUSKIN, in the first chapter of his work on *Modern Painters*; “so that,” he continues, “while the fancies and feelings which deny deserved honor, and award what is undue, have neither root nor strength sufficient to maintain consistent testimony for a length of time, the opinions formed upon right grounds, by those few who are really competent judges, being necessarily stable, communicate themselves gradually from mind to mind, descending lower as they extend wider, until they leaven the whole lump, and rule by absolute authority, even where the grounds and reasons for them cannot be understood.” What is here said of art will apply equally well to law. Decisions sanctioned by time are entitled to respect, but only because they are presumed to be, and generally are, the decisions of wise men, capable of forming a correct opinion of the points in dispute. When generation after generation have admitted them to be sound, and the practice of different countries, influenced by various social customs, and affected by conflicting habits of thought, unanimously confirm them, the presumption of their justice is greatly increased. And when, in addition to this, they are shown to be in conformity with the dictates of reason and common sense, these decisions must be admitted to be absolutely true. Individuals, however great their intelligence or extended their learning may be, are still liable to err, and if one unjust decision should remain unquestioned for a length of time, and should be blindly followed by a host of judges, still an occasion will inevitably arise when some one, more acute or more careful than the rest, will detect the error, and arrive at a different conclusion; this in turn will be supported by subsequent decisions, until the erroneous judgment shall altogether cease to be quoted as authority. Thus we see that the more ancient any doctrine is in the law, the greater the probability of its correctness; but it does not by any means follow, that every doctrine is absolutely true that is supported by time-honored authority.

Chancellor KENT says of GROTIUS, that he searched the writings of the wise and learned men of all ages—philosophers, divines, historians, poets; and that when he found that “many men, at different times and places, unanimously affirmed the same thing for truth,” he concluded that “it ought to be ascribed to some universal cause.” Maritime law, like the

law of nations, cannot, by the nature of things, be based upon the traditions of any particular people; but must be founded upon principles which are held in common by all nations. These principles, in the abstract, are plain enough, but in their application to particular cases their various interpreters have caused much confusion to arise. Thus the doctrine of general average is plain enough in theory, and the principle that "contribution is the price of safety," and that what is saved contributes to a general loss, seems broad enough to cover every case that could arise. But when we come to compare the practice of different nations, we find discrepancies so great and contradictions so decided, that it is hardly possible to believe that interpretations so various could ever be traced to a common origin. If it be true of the law in general, that its doctrines should be based upon the opinions of the wise and learned of the past, it is especially true of that branch of it which relates to maritime affairs. The opinion of many men, at different times and places, is the sole guide to truth; and we must rise above the influence of local custom and tradition, and refer to principles which have the unanimous sanction of authority and reason, if we wish to substitute uniformity for the present conflicting practice.

An attempt has lately been made in England to collect and compare the opinions of the commercial world upon several disputed points in the present general average practice, with a view of reconciling its inconsistencies, and of introducing greater uniformity in its present conflicting customs. A body of men in England, known as the "Society for the Promotion of Social Science," have recently drawn up a "Synopsis of General Average Practice in England, America, France, Belgium, Holland and Germany," and have sent copies of it to the various commercial cities of Europe and of this country, with the view of eliciting new suggestions, and of then framing a bill for the British Parliament, which will reconcile the inconsistencies now existing, and definitely settle the principles on which the law depends. This synopsis was received by the various commercial cities alluded to, and has been returned by them to the society with suggestions, as requested. In September, 1860, the association met again, and passed certain resolutions, embracing rules which they considered would be desirable amendments to the present practice, to be adopted under a uniform system. They also drew up a second synopsis, embracing the various suggestions received, and distributed this second document for consideration, in the same manner as the first one. This latter document was drawn up by Mr. P. H. RATHBONE, the deputy chairman of the Liverpool Association for the Protection of Commercial Interests, as respects wrecked and damaged property. "The English practice," says the preface, "is chiefly extracted from Mr. BAILEY'S valuable work upon general average, and has been revised by Mr. BAILEY. The United States' practice is given upon the authority of "The Law of Insurance," by PHILLIPS, fourth edition, and has been amended, for their respective ports, by the Board of Underwriters of Boston, the Chamber of Commerce of Charleston, and the Chamber of Commerce and Board of Underwriters of Mobile. The French practice has been extracted from the ninth edition of ROGRON'S "*Code de Commerce Expliqué*." The practice at Bordeaux was obtained through Mr. W. M. Moss; and that of Brest and Boulogne, of Amsterdam, Hamburg and Belgium, through the committee for managing the affairs of LLOYDS.

To the active and courteous aid of this committee and to their agents, is due the completeness of this record of continental practice.

That this uniformity of practice would greatly facilitate and simplify commercial intercourse, cannot be denied; but whether it is possible to accomplish it in the manner proposed, is a matter of reasonable doubt. Customs of law are the slow growth of ages; each point, as it arises, must be settled by learned arguments, and by reference to authorities. And it is almost too much to suppose, that individuals in different countries, affected, as they necessarily must be, by local traditions and prejudices, will be content to submit their disputes, on so vexed a question as that of general average, to the arbitrary rules of society. At the same time, it is a great step towards the establishment of this uniformity of practice, at some future time, that an opportunity should be offered, of at least collecting and comparing these discordant opinions. Should the society succeed in passing a bill through the Parliament of England, a greater step will be taken, and in that case it is only reasonable to suppose that the example will be followed by other nations, and the desired uniformity be thus attained. But the passage of such a bill has been attempted before in England without success, and it is possible that this second attempt may meet with a similar fate. Mr. STEVENS, in the preface to his work on average, uses the following language on the subject: "Much has been said in favor of establishing a code of insurance laws, similar to those promulgated in foreign countries; but it is apprehended, that few persons of experience at LLOYDS' will, on consideration, be disposed to recommend such a measure. It would, perhaps, be extremely difficult, if not wholly impossible, to make positive laws to suit every case; and it is doubtful whether, if such were made, they would be found to answer the purpose of preventing litigation. An attempt was indeed made in the year 1747, to procure an act of Parliament for the better regulating of assurances on ships, and on goods laden thereon, and preventing frauds therein. Leave was given and a committee appointed to bring in the bill; but it is almost unnecessary to observe, that it did not pass into a law."

It is not a little singular that the country from which this reform in general average practice is proposed, is the one of all others which needs it the most. The English practice departs more widely from general principles, and is more inconsistent with itself, than that of any other nation. And it is not too much to assert, that if a uniform practice shall ever be arrived at, it will be because the customs in Great Britain are made to conform to those of other countries, rather than that these are altered to agree with theirs. On the other hand, it is asserted by Judge PARSONS, that where our maritime law differs from that of England, it follows the decisions "of the successive codes of continental Europe, which, in successive ages, have defined that jurisdiction and built up that law, and is based upon the opinions of the many learned men who have illustrated both." Admitting this to be true, American maritime jurisprudence, with the weight of continental authority on its side, may fairly claim to be considered as a model, even for adoption by the mother country, where a narrower standard appears to prevail. And a general average practice, resting upon the precedents of universal law, may certainly be considered superior to one whose principles are confessedly limited by the custom of LORDS.

Admitting, then, that the general average practice of the United States is based upon the widest possible basis; and that it has laid the wisdom of the world under contribution for its principles; and, moreover, that it has not, as yet, "been curtailed of its fair proportions, like that of England, in a succession of ages, by the attacks of rival and victorious courts;" (PARSONS, p. 17;) nor been limited by the customs of a powerful institution; admitting these things, it will not be deemed presumptuous to state, that in the following examination of the "Synopsis of General Average Practice," it is proposed to take the American interpretation of the doctrine as a basis for the remarks, and rather to compare the practice of other nations with ours than ours with theirs.

As far as regards the general principles of the subject, it would seem that the ideas of all nations are very nearly uniform. Where there appear to be discrepancies, they will be found, on examination, to be rather in the text of the writers than in the ideas themselves. Thus, Mr. BAILEY's assertion, that, in order to constitute a general average act, "there must be a moral certainty of total loss," appears to differ from Mr. ARNOULD's language, "that the act must be justified by an apparently imminent peril." But when we read Mr. BAILEY's definition of "moral certainty" as that which "must happen if circumstances which may possibly change do not alter," we find that exactly the same idea is conveyed by the one definition as the other. It appears, therefore, that all maritime nations are agreed, that in order to constitute a general average there must be "common interest;" that the act must be a "voluntary and deliberate one;" that it must be justified by an "apparently imminent danger;" that it must be "judicious." A successful result is not absolutely necessary, in England and America, but in France, Belgium, Holland and Germany, if the safety of the ship is not accomplished, no contribution need be made; and, moreover, by the customs of Amsterdam, "not even what is actually saved must contribute." All are agreed that the loss must be the "immediate and necessary consequence" of the general average act, and that the article sacrificed must not be itself the cause of danger; and also, that the sacrifice or expense incurred must be extraordinary, and not included in the ordinary duties and expenses of navigation, which come under the head of *wear and tear*, and which must be borne by the owner as a means of earning freight. In France, Belgium, Holland and Germany, the old practice of requiring the master to consult with the crew previous to the commission of the act, is still maintained; but in England and in the United States it is not considered necessary. Indeed, in most cases it would be impossible, since sudden emergencies hardly allow time for reflection, still less for consultation; and the class of men who generally compose the crews of these countries are, in most cases, incompetent to give advice if asked for. Where it is customary, even, it is probably a mere matter of form, for, according to the old law, which is probably still in force wherever the custom now prevails, if the master's opinion differed from that of the crew, his judgment was still allowed to prevail. EMERIGON, describing the formalities necessary in such cases, quotes the *Consolato del Mare* to this effect: "When the master finds himself under the necessity of making jettison, he is to say to the merchants, in the presence of the crew, 'Messieurs, we are in great danger of perishing; the only way to save ourselves, the vessel and part of the cargo, is to make a jettison.' If the merchant

shippers consent, the jettison may be made; if they refuse consent, the master is still, says the *Jugement d'Oleron*, to throw overboard as much as he deems necessary, himself and a third of his crew taking an oath on the holy gospels that they have made the jettison to save their lives and the ship, and the other property on board."

One of our eminent writers on insurance law (Mr. WILLARD PHILLIPS) has compared a general average contribution to what is known in law as salvage; and this idea, that it is always the "price of safety," and "what is saved contributes," although condemned by some as unsound and incomplete, will be found upon examination to be correct; and, if it is admitted, will serve to render clear some points at present in dispute. Add to this that the immediate, but not the remote, cause of the act is to be considered, and that the consequences of the act are equally subjects of contribution with the act itself, and we have established all the precedents upon which the American doctrine of general average depends, and from which our practice is in all cases logically deduced.

These principles are admitted in Europe, and in England also, to be correct; but in the latter country they are often practically set aside. Thus, among the consequences of a jettison, damage done to cargo, by disturbing the stowage to perform that act, is not contributed for. Neither is the damage to copper, by wreck of mast cut away before it is finally released from the vessel. In regard to the second of these exceptions, an English writer on average, Mr. MANLY HOPKINS, thus expresses himself: "When masts have been cut away, and, in falling, injure the deck, destroy rails and bulwarks, and do other damage, the repairs of such damage belong to general average. And if, after the mastage has fallen into the water, it strikes against the ship's sides and knocks off or injures the metal sheathing, it may well be supposed that this damage is likewise claimable as general average. But here the present custom is inconsistent with itself, for it is held that the injury thus sustained by the sides and sheathing does not form an item for general contribution, but falls upon the ship alone. There can be little doubt that, as a matter of principle, this practice is erroneous; for it seems illogical in a progressive series of consequences, clearly dependent on and traceable to one cause, to classify a certain number of the links in the chain in one category, and to make a new rule for the succeeding link."

It is, however, in apportioning the expenses that arise when a vessel is obliged to make a port of distress to repair damages occasioned by sea perils, that the most marked discrepancies between our practice and that of England are seen. In this country all the expenses of entering and clearing from the port, including the wages and provisions of the crew from the time the vessel bore away for the port of distress until she is again ready for sea, are subjects of general contribution. So, also, are all charges for unloading, storing and reloading the cargo, in fact, all the expenses incurred, except the actual repairs to the ship itself; and even these latter, should it happen that they are only temporary in their nature, and of no permanent value to the ship. And also, if the repairs to the ship are exorbitantly high, owing to the difficulty of making them at the port sought, this excess over the average price is to be contributed for. But in England, according to the synopsis, the following exceptions are made:

The inward port charges are general average, but not the extra wages

and provisions of the crew, either while making the port or while detained there. The discharging of the cargo by ordinary means is also general average, but not "the hire of lighters to avoid discharging cargo." As soon as the cargo is out of the ship, all subsequent charges for storing, watching the property, &c., are charged to that interest alone. For example, cutting timber in order to reship it, airing and cooling cargo, expense of coopering casks, as far as rendered necessary by discharging, expense resulting to cargo from leaving a portion of it behind. And, finally, the expenses of reloading and outward port charges, are borne by the freight. The reasoning upon which these exceptions are based is as follows: When a ship is disabled by a storm at sea, and cannot with safety prosecute her voyage, common interest would dictate that a port of refuge should be sought, and the putting into port, being for the benefit of all concerned, is a general average act; but when the port is reached the danger ceases, and each interest must then take care of itself. This is, in substance, the language of Mr. BENECKE on the subject. He says: "As soon as the object of putting the vessel and cargo in safety is accomplished, the cause for contribution ceases; for whatever is subsequently done is not a sacrifice for the benefit of the whole, or for averting an imminent danger, but is the mere necessary consequence of a casual misfortune. If, owing to the injury sustained by the vessel, the cargo must be landed to prevent its being more damaged, the charges of unloading, housing, insuring against fire, reloading, &c., very properly fall upon the proprietor of the cargo. For the landing is a necessary consequence of the misfortune that had occurred, and cannot be said to be resorted to for the purpose of enabling the vessel to proceed upon her voyage when repaired, since the goods would have been landed also if the voyage could not have been prosecuted. The vessel, therefore, ought not to be charged with a part of those expenses which were not intentionally incurred for her benefit, but which only incidentally became useful to her. Even if the unloading were resorted to merely for the purpose of repairing the vessel, still, it being the natural consequence of a particular average, and taking place after the ship and cargo are in safety, it cannot be a general average.* If the damaged vessel after unloading is repaired, the object of this measure is to restore the ship to her former condition, and to enable her to carry the cargo to its port of destination. The repair of the vessel, *by itself*, is evidently not an object which concerns the shipper, and to which he can be obliged to contribute. Inasmuch as it tends to forward the voyage, the repair of the vessel certainly concerns the shipper, and he has a right to demand it without being under an obligation of contributing to the expense, for, by virtue of the contract of affreightment, the ship-owner is bound to forward the cargo to the port of its destination, and, from the fulfilment of this contract, nothing short of impossibility can excuse him. To repair the damage accidentally sustained by the vessel, if it admits of being repaired, is, therefore, a duty incumbent on the ship-owner by the contract of affreight-

* Thus, where Mr. A. ships a thousand barrels of flour, and Mr. B. a like quantity, and when the ship puts into a port of distress, the former only is landed, or lightered, or damaged by such transfer, the loss, by the English law, falls upon himself or the underwriter, and is not a subject of general average; although the loss is sustained clearly in consequence of the endeavor to put the vessel, the property of B., and the whole cargo, again in a seaworthy condition. Here such loss would seem to be a loss chargeable to general average.—*Ed.*

ment, and it is counterbalanced by the merchant's obligation of either waiting for the repairs at the intermediate port, or paying full freight; consequently, the expenses thus incurred, although they may exceed what the same repairs would have cost at another port, as well as the maintenance and wages of the sailors during the time of repairs, fall upon the owners."

It will be seen that this reasoning of Mr. BENECKE'S, while admitting that the consequences of a general average act, or of a casual misfortune, are to be considered equally with the act or the accident themselves, denies what we consider a fundamental maxim, that the immediate (and not the remote) cause of the act is to be considered. If putting into port to repair damages caused by a storm is only a general average act while the danger lasts, and when that ceases, all subsequent charges are to be deemed the results of an accident, it will be impossible ever to establish any general average act. If the masts had been cut away to avoid wreck, and the vessel, thereby disabled, had to seek the port, everything must be contributed for. But was not the violence of the elements the remote cause for cutting away the masts, in the same manner as it was the remote cause of putting into port? On the other hand, it may be argued that the contract of affreightment only obliges the ship-owner to carry the goods, the perils of the sea excepted. If the master attempts to carry out this contract, he will probably wreck his ship and destroy the goods. In that case the shipper loses his goods and the owner his freight; both, therefore, have an interest in seeking the port. Arrived there, the goods must be discharged, not, certainly, for their own benefit, nor for the exclusive benefit of the ship-owner, for, as we have seen, it is not merely to repair his ship that the expense is incurred, but to save the cargo from destruction, which would have been its fate if the port had not been sought. The storing, watching and reloading are all results of this act done for the common benefit, and there is no reason why the freight should be burdened by this latter, or by the maintenance and wages of the crew while making port and during repairs. For the contract is waived by the impending peril, to avoid which the port was sought. Admitting the English reasoning to be correct, it is a little singular that they do not allow wages and provisions while making the port, since they admit this to be a general average act, and they allow a part of the expense, the port charges inwards. It is clear, then, that this argument is inconsistent and unsound, and we can only add, that it is impolitic, for a general average, however heavy, is always less than a total loss; and masters, knowing how heavy an expense they are bringing upon their owners, since the maintenance and wages of the crew, the reloading, &c., are likely to amount to more than the charges for storing and watching the cargo, would naturally be inclined to run great risks rather than incur so expensive a remedy. And if it is urged that the cargo is generally much more valuable than the vessel, and has, therefore, a larger proportion to bear of average expenses, we can only answer that this is the price of its safety. That this reasoning is supported by authority, the following quotations will show:

RICARD, *Negoce d'Amsterdam*, p. 280, writes: "Where a vessel is forced by storm to make a port, in order to repair the damage sustained, being unable to prosecute her voyage without risk of being totally lost, the wages and maintenance of the crew, from the day on which it was

determined to seek a port for repairing the vessel to the day of departure from that port, are considered general average; also the charges of landing, reloading, pilotage, and other dues and charges occasioned by that measure."

BALDASSERONI, an Italian writer, states, "that he never heard it disputed, that the charges of entering the nearest port, and the repairs of damage incurred to prevent shipwreck, belong to general average, but that a difference of opinion often prevails as to the cause and nature of the damage; that when it arises from a natural cause, it is usual to bring to the account of general average that part only which has been added to the damage for the joint benefit; and to the account of particular average that damage, the cause of which is special, (not having reference to the joint benefit,) or the repairs by which, without necessity, the ship's value has been improved; but that all the expense of making a port for the general benefit, and all the consequences resulting from that step, have always been considered as subjects of a general contribution."

EMERIGON, a celebrated French authority, says: "A vessel which had considerably suffered by storm, so as not to be able to proceed on her voyage without a risk of being lost, goes into a port for repairs. The charges of unloading and reloading, the maintenance and wages of the crew during the time which is spent there, are all placed to general average. The charges of repair, however, the cost of masts and sails, and other apparel purchased, are excluded from general average. But should it be necessary to pay exorbitantly for these articles, owing to a scarcity of laborers or the high price of materials, that part which is paid above the common value would be brought into general average."

LORD ELLENBOROUGH held language to the same effect, in the case of *PLUMMER vs. WILDMAN*, which shows that even in England there are precedents for the doctrine. He says: "If the return to port was necessary for the general safety, it seems that the expenses unavoidably incurred by such necessity may be considered as general average. It is not so much a question whether the first cause of the damage was owing to this or that accident, as whether the effect produced was such as to incapacitate the ship, without endangering the whole concern, from further prosecuting her voyage."

We have thus endeavored to show that the American interpretation of this doctrine is founded in reason, and, further, that it is supported by authority; and we will now proceed to consider the question of voluntary stranding, a point about which the English practice is equally inconsistent and illogical.

"When the ship is voluntarily run ashore to avoid capture, foundering, or shipwreck, and is afterwards recovered so as to be able to perform her voyage, the loss resulting from the stranding," says Mr. ARNOULD, "is to be made good by general average contribution." "Where, however, the ship is lost in consequence of the stranding," continues the same authority, "but the cargo saved, does that which is so saved contribute in general average for that which is lost?" In this country it does, but in England it does not. "The reasons put forward to satisfy us that this damage is not of the nature of general average," says Mr. MANLY HOPKINS, "are, first, the indefiniteness of the injuries to the ship purposely entered upon by running ashore; and, second, that in the case of a ship about to founder, her impending fate was not *probable*, but *absolutely*

certain. Had she been left at sea she must have sunk, and the driving her ashore was a mere '*saue qui peut*;' and that, consequently, any damage so incurred must be individually borne by the sufferers, and not made good by contribution." The fallacy of the first argument is evident, for in all cases of sacrifice the amount of damage may exceed the limits calculated upon; and, as to the second, it would seem that the greater the danger avoided, the more reason for contributing to the expense of it. In the one case Mr. HOPKINS says, "it is like a person assisting a needy friend, not by giving him a certain fixed sum out of his purse, but by placing the whole purse at his disposal, to take what is necessary;" and, to illustrate the weakness of the second argument, he adds: "If I give my hearty thanks to the man who saves me from drowning, by snatching me out of shallow water, into which I have just fallen, are not my gratitude and rewards due in a yet higher degree to him who brings me on shore out of deep water, when my life was on the very verge of extinction?"

The question has been entirely set at rest in this country by the arguments of Mr. Justice STORY, in the case of the COLUMBIAN INSURANCE COMPANY *vs.* ASHBY. In reference to which decision, Mr. ARNOULD remarks that, "the point has never presented itself for judicial decision in this country, (England.) Should it arise, the principles established in this judgment would, no doubt, have their due weight in determining the mind of the court."

After showing how the doubts upon this subject arise from a misinterpretation of the Roman law, and the application of a principle which is only correct as far as jettison is concerned, and which was originally only intended to be applied to a jettison, Mr. STORY goes on to say, that EMERIGON stands alone among the foreign authorities in maintaining the qualification that it is necessary to a general average that the ship should be got afloat again after stranding. "The analogy between the two cases," he continues, "is neither so clear nor so close as EMERIGON has supposed. In the case of jettison, to avoid foundering or shipwreck, if the calamity occurs, the object is not attained. But in the case of the stranding, whatever is saved is saved by the sacrifice to the ship, although the damage to her may have been greater than was expected. Surely the question of contribution cannot depend upon the amount of the damage sustained by the sacrifice, for this would be to say, that if a man lost all his property for the common benefit, he should receive nothing; but if he lost a part only, he should receive full compensation. No such principle is applied to the total loss of goods for the common safety, as, for instance, in the case of a jettison of a whole cargo, why, then, should it be applied to the total loss of a ship for the like purpose?" * * *

He then quotes from the *Consolato del Mare*, Roccus' *Treatise de Navibus et Naut.*, VINCINNES' *Commentary on the Rhodian Law*; BYNKERSHOEK, CLEIRAC and MAGENS, to the same effect. He further states that JACOBSEN, BENECKE and STEVENS all admit this to be the result of foreign jurisprudence and ordinances, and says, that the latter author, (STEVENS,) notwithstanding his own opposition to the rule, admits that it "appears to have been the practice at LLOYD'S, as far back as the time of Mr. WESTCOTT; and that recent opinions of eminent counsel in England fully admit and confirm it."

It would thus appear, that our interpretation of the doctrine of voluntary stranding, and our practice, when a vessel is compelled to seek a port

of distress to repair damage done by a storm, are alike founded in reason and supported by authority. And it would also appear, that where the English practice differs from ours, the arguments used to support it are both illogical and inconsistent, and are, besides, at variance with the principles laid down in the older codes. It is evident, then, that no alteration is necessary in our practice, and, least of all, such a change as would cause it to conform to that of England; and therefore, although we may be pleased at the effort which has published to all the world the soundness of our system, we can neither gather from the synopsis any hints for its improvement, or indeed any suggestions for its alteration. Still less is it to be expected, that much importance will be attached to any rules that the society may pass upon. For, apart from the difficulty of settling, by arbitrary rules, disputes that can only be satisfactorily adjusted by the learned arguments of counsel on the particular point in dispute, it can hardly be expected that rules formed in England, by an association in which English influences necessarily predominate, will not be influenced by English customs and made to conform to English ideas. It is for these reasons, probably, that so little interest has been taken in the subject by the merchants and underwriters in our city. Upon the receipt of the first synopsis, and in conformity with the request of the association, delegates were sent from this city and from Boston, and other places, to meet the society at Glasgow. But the second synopsis has been quietly laid aside, and, excepting this attempt at an analysis of it, no mention of the matter has ever been made in print, and no action upon the subject has been proposed by any of our commercial associations.

In conclusion we will remark, that the inconsistency of the English practice is admitted to be owing to the influence of a powerful institution which is able to settle arbitrarily all points in dispute. Mr. JAMES CADDOW, one of the delegates to the society, remarked, during the debate upon the adoption of this proposed uniform system of general average, "that it seems to be the genius of the custom at LLÓYD'S, that no loss which could be charged to a particular interest should be recognised as general average." That this practice is hurtful in the extreme to the interests of the merchant is easily seen, for not only is there less inducement held out to a master to save his ship by putting into port to repair, or by running ashore in a safer place to avoid a more certain destruction; but many of the charges resulting from the first of these acts are not merely excluded from general contribution, but are thrown upon the ship-owner exclusively, without being allowed by the insurers as a particular average. The decisions of our own courts have so clearly settled our law upon this subject that it seems hardly possible to suppose that any similar influence here could ever set aside these decisions. But still it must be remembered, that monopolies, of whatever kind, are always injurious to commercial enterprise. And there is undoubtedly danger that in the effort to obtain greater security, as it is supposed, by building up powerful corporations, our merchants will find in the end, that like the magician in the fable, they have raised a spirit which they cannot control. Should it ever happen that the insurance business of this city is monopolized by one or two overgrown companies, we may expect to see the same process repeated here that has already taken place in England; and the insurer will find that his rights are encroached upon, one by one,

until insurance is no longer an indemnity. It is true that the expense of management would be greatly lessened by consolidating our present marine companies into one or two powerful institutions. But by this process competition would be destroyed, and the underwriters, instead of being merely the agents of the merchants for distributing their losses among each other, would be able to dictate what terms they pleased, and would in the end make insurance so expensive and so limited, that it would become a burden upon, instead of an assistance to commerce. On the other hand, it is easy to see that by encouraging the formation of new companies within reasonable limits, insurance rates would be at once reduced to the lowest remunerative point, and the greatest liberality would prevail in the settlement of losses. Nor would the security be lessened; for if a small company apportions its lines to the amount of its capital, it is able to offer as great a security for this limited amount as a large company is for a greater one.

COSMETICS.

PERSONAL ADORNMENT.—ANCIENT USE OF COSMETICS; THEIR COMPOSITION AND PREPARATION; IMITATIONS AND COUNTERFEITS.—BLANCS, POWDERS, ROUGES, FARDS, MILKS, POMADES, HAIR-DYES, DEPILATORIES, ETC., AND THE DANGERS OF THEIR USE.—TOOTH POWDERS AND SOAPS.—TOILET SOAPS, HOW MADE, AND THE SIGNIFICANCE OF THEIR NAMES.—TRICKS OF THE TRADE.

UNDER this heading may be comprehended all substances or preparations employed for the purpose of preserving or restoring beauty. Their purpose is to change the appearance of the skin, the hair and the teeth.

The variety of substances which are and have been used from time to time under the names of paints, powders, pastes, dyes, pomades, balms, soaps, creams, oils, essences, vinegars, aromatic waters, &c., is almost innumerable; yet the bases of these preparations depend upon the known properties of a comparatively small number of substances, which may be generally identified with but little difficulty.

Personal adornment by means of cosmetics has been practiced from most ancient times. Classical writers inform us that the dames of Greece and Rome derived the custom of using cosmetics from the Egyptians. And to CATHARINE DE MEDICIS is awarded the honor of having introduced the same custom into France. She is said to have derived her knowledge of their use from the Italians. Yet the use of cosmetics did not become general in France until about the end of the seventeenth century. About this period of time, M. DAGUIN, counsellor and first physician to the king of France, and M. DE BLEGNEY, counsellor in ordinary to his majesty, and director of the Royal Society of Medicine, translated from ancient writings the "*Secrets concernant la beauté et la santé*," which was printed in two volumes. A copy of this work is still preserved in the Imperial library of France. In the second volume of the *Secrets*, are numerous ancient formulæ for the preparation of celebrated cosmetics, and the manner of applying them.

Le blanc de perles and *L'huile de perles* derived their names from the costly material which originally entered into their composition. *Le blanc* was made by reducing pearls to powder; and *l'huile* by dissolving them

in vinegar. These preparations were said to possess most marvellous properties in the restoration of youth and beauty, while from their great costliness they were almost exclusively limited to the toilet of the royal household. But ere long it came to pass that these royal preparations had many counterfeits. Pearls, it is well known, were esteemed of great value in ancient times. *Principium culmenque omnium rerum pretii, margarite tenent.* (Plin. Hist. Nat. lib. 9, c. 35.)

The Shah of Persia possesses a pearl bought by TAVERNIER, at Catifa, in Arabia, a fishery famous in PLINY'S time, for the enormous sum of ten thousand pounds sterling. It is pear-shaped, from two to three inches long, and over half an inch in diameter, and without a blemish. Small or defective pearls were of much less esteem, yet they were of considerable value, and were, therefore, too costly to be manufactured into lime, even in ever so small quantities. Hence it is not surprising, that those who would imitate the fashions of the court were under the necessity of adopting the less costly, though identical material of the humble oyster, by the use of its outside gear, and yet have genuine *blanc de perles*. The "pearl powders" of modern cosmeticists, at least, have far less right to the name, for these modern preparations generally consist of white oxide of bismuth, or equal parts of this substance, with common chalk and oxide of zinc. *Le blanc de perles* has, indeed, long since ceased to indicate the origin of the substance so called. And "*le blanc de Troyes*," "*le blanc de Mendon*," "*le blanc de Espagne*," &c., now, like *le blanc de perles*, only indicate *des blancs*, that is to say, white cosmetics, substances and compounds of very different properties. The same may be said of "*l'huile de perles*," "*le lait virginal*," "*la crème de beauté*," "*l'eau de Ninon*," "*le trésor de la bouche*," "*la pomade des Sultanes*," "*le farde d'Aspaisie*," "*le crème Parisienne épilatoire*," "*le poudre depilatoire parfumée*," &c., &c. They indicate substances of the most diverse character, while the name has been diverted from its original purpose, and now more generally points to the use that is to be made of the compound.

As nothing is more flattering than the art of preserving beauty and adorning the exterior of our persons, it is not surprising that the use of cosmetics is one of the most universal practices of civilized nations. Indeed, nearly allied to the use of cosmetics among civilized communities are the practices of uncivilized people, in scarifying and grotesquely painting their countenances for the same purpose. Perfumery, too, enters into the category, for the sense of smell seeks gratification scarcely less than the sense of sight. It is plain, therefore, that a description of all the various substances used in the manufacture of cosmetics, would very much exceed the limits of this paper; indeed, such a purpose would require a volume.

We propose to show, however, that strong acids and alkalis, the salts of lead, mercury and silver, and preparations of arsenic, change not their properties under the disguise of fancy names. And that although they may for a time soften the skin, give gloss to the hair, and tint to the cheek and the lip, the time is but hastened when the lily and the rose give place to a leaden hue, and the lips of carmine to a livid blue.

To be powdered and scented is among the first conditions of infantile refinement. And when we take into consideration the extent of this practice, we begin to have some conception of the amount of material

thus used ; and we also cease to wonder at the continuance of a practice in advanced years, which, in our childhood, we are taught to consider as one of the chief conditions of the toilet. Many tons weight of toilet powders are doubtless used annually in this country for the infantile toilet alone. These are generally composed of various starches, prepared from wheat, rice, arrow-root, and various nuts mixed with different proportions of powdered talc, oxide of bismuth and oxide of zinc, scented with various aromatics.

PERLE POWDER, according to the common acceptation of the term, consists of equal parts of oxide of bismuth and oxide of zinc, with sixteen parts of French chalk. French blanc is levigated talc passed through a silk sieve. This when well prepared is probably the best face powder made, inasmuch as it does not discolor from cutaneous exhalation or an impure atmosphere. Calcined talc is also extensively used under various names, and is unobjectionable ; but it is less unctuous to the feel, and more likely to be seen than genuine French blanc.

ROUGES are usually made by mixing coloring matter with either of the above-named powders. The finest kinds are made by mixing carmine with French blanc, in different proportions, say one part of carmine to from eight to twenty parts of blanc, in order to produce different shades of color, for different complexions, from blonde to brunette. Rouges are prepared and sold in the form of powder, cake, and paste or pomade ; in the last form, the compound generally contains a minute proportion of tragacanth, or other gum, and is put up in pots. In some instances the rouge is spread upon fine card paper, and carefully dried, when it assumes a beautiful greenish tint, and loses the appearance of rouge. The same effect is also sometimes observed in "pink saucers," and in what is known as Chinese book rouge. Such rouges are generally of fine quality, and when moistened with a piece of cotton and applied to the lips or cheeks, the color assumes a beautiful rosy hue. Common pink saucers are made by washing safflower (*Carthamus tinctorius*) in water until the coloring matter is removed, and then dissolving out the carthamine, or coloring principle, by a weak solution of carbonate of soda. The coloring is then precipitated into the saucers by the addition of sulphuric acid to the solution. Spanish wool and Crépon rouge are made by the same process. Other common rouges obtain their coloring by the admixture of Brazil wood or santal ; and ignorant or careless persons sometimes use cinnabar—the red sulphuret of mercury. It makes a very *fine-looking* rouge, but it causes a diseased condition of the parts to which it is applied, and, being liable to absorption, may poison the constitution and even destroy life.

Various other paints, or what the French commonly denominate FARDS, are chiefly made for theatrical use ; but they are, nevertheless, extensively used by private individuals. Unfortunately, most of these have for a basis *white lead*. They are soft and unctuous to the touch, easily adherent and persistent ; they appear to give pliability to the skin, rendering it soft and smooth as fine kid. These are the chief commendable qualities of highly deleterious and extensively-used compounds, sold under various names, to be used as cosmetics. White lead, thus applied, is readily absorbed, and exercises a most injurious effect upon the system. It acts insidiously, but gradually and constantly undermines the constitution, and lays the foundation of the most incurable and dangerous dis-

eases. It perverts the vitality of the skin, paralyzes the perspiratory functions, and diminishes or destroys the capillary circulation. The skin appears tarnished and shrivelled, or takes on a deadened hue; and the countenance assumes the appearance of dissipated habits or premature old age. The morbid products of the circulation, which were destined to be eliminated by the functions of the skin, are retained in the blood, or devolved upon the functions of other organs. All the secretions become more or less deranged. Digestion is seriously interrupted or suspended, violent colics ensue, and the food which is necessary for the nourishment of the system fails in its purpose, is loathed or rejected. This general perturbation of the functions reflects upon the nervous centres, and the fatal symptoms of a softened spinal marrow or brain at last leave no hope for relief but in death. This is no over-wrought picture. In France, where the conservators of public health constitute an intelligent portion of every municipality, prosecutions for selling fatally deleterious *fards* are far from being uncommon. And it has been clearly proven by some of the most scientific men of France, that the health and lives of many distinguished *artistes* and women of fashion have been sacrificed by the use of poisonous cosmetics. In this country, where there are no checks upon the ignorant or the base who prepare these things for the multitude, examination into the causes will clearly demonstrate the conclusion, that many of our own *artistes* and leaders of fashion owe their premature loss of excellence much more to the use of poisonous cosmetics, than to, what is too commonly supposed, dissipated habits.

MILKS and EMULSIONS are nearly allied to paints. Everybody knows that many seeds and nuts, when divested of their outside covering, and reduced to a pulpy mass by being thoroughly rubbed up with water, may be made to resemble milk. This appearance is due to the minute mechanical division of the oil of the nuts thus treated. But all such substances are exceedingly liable to decomposition, and, unless fixed by the addition of other matter, they quickly spoil. They can generally be fixed for a short time by the addition of a small proportion of alcohol and aromatic oils; and these additions, if well proportioned, may serve to render such compounds desirable and innocent cosmetics. It is too often the case, however, that the maker and vender of these compounds regards his purse more than the health of his patrons. Arsenic, corrosive sublimate and prussic acid are known to possess antiseptic properties, that is to say, they are preservatives against decomposition. In milks and emulsions, the most highly commended for the preservation of health and beauty, *it is no uncommon thing to find, upon analysis, these deadly poisons, arsenic, corrosive sublimate and prussic acid!*

POMADES frequently contain the acetate and carbonate of lead, corrosive sublimate and cinnabar; in which case they contain all the injurious qualities pertaining to the same poisons in *fards*, as above described.

HAIR DYES and DEPILATORIES.—The use of this class of cosmetics is, perhaps, far more ancient and extensive than that of any other. A recent traveler* states that, among other curiosities found in the Egyptian tombs of the Sahara, was a piece of reed, containing a quantity of powder such as is used even at this day by the Egyptian women to color the eyelashes. It is supposed to be the same custom as that referred to by

* Dr. SHAW.

the prophet JEREMIAH, when he writes that, "Though thou rentest thy face (or thine eyes) with painting, in vain shalt thou make thyself fair." So far as known, however, the hair dyes of the ancients were wholly obtained from certain juices and gums of aromatic plants. LANEERER informs us, that at Constantinople certain Armenians devote themselves to the preparation of cosmetics, and among the most celebrated of these, is a black dye for the hair, termed *Rastikopetra* or *Kastick-Yuzi*. The name, he states, is derived from that of a *metal* used in the preparation of the dye. The preparation of this dye consists in the mixture of the dust of this metal (the nature of which is kept secret) with finely levigated nutgalls. In some cases this mass is scented by the admixture of *harsi*, an odorous perfume commonly used in the seraglio. This dye is generally kept in the form of paste, and it is applied by rubbing it on the hair or beard with the hands. After a few days the hair assumes a beautiful glossy black. LANEERER attributes the fine black beards and soft glossy black hair of the Turks to the common use of this superior dye. The coloring property is probably wholly due to the pyrogallic acid of the galls. Most of the lotions and perfumes prepared by apothecaries and hair dressers in this country, as in France, consist of compounds holding in solution different proportions of *litharge*, *lime* and *nitrate of silver*. Some of the most popular of the French dyes are sold under such names as *l'Eau de Perse*, *l'Eau d'Egypte*, *l'Eau de Chypre*, *l'Eau de Chene*, &c. They contain from one-eleventh to one-seventh per cent. of *sulphuret of potassium*, *nitrate of silver* or *quick lime*, with minute proportions of *oxide of lead* and *carbonate of iron*. What is sold by our own apothecaries as "*vegetable dye*," consists of one ounce of nitrate of silver to a pint of rose-water, put up in colored bottles. The directions for the use of this preparation are, first, to free the hair from grease by washing it with *pearlash water* or *soda*, and, after the hair is perfectly dry, apply the dye by means of a brush. It does not "strike" for several hours, but may be hastened by exposure to sunshine. Other preparations are accompanied with a mordant, which usually consists of a strong solution of sulphuret of potassium; still others, with *ammonia*, this substance being added to correct the otherwise bad odor of the sulphuret of potassium; it is commonly called *inodorous dye*. French "*Brown dye*" is composed of *sulphate of copper*, *ammonia*, and *prussiate of potassa*; this is exceedingly poisonous, but said to be a very fine dye.

DEPILATORIES are substances used to remove hairs from the surface. Ladies generally consider the growth of hair on the face, arms and neck as prejudicial to beauty. Hence those who allow themselves to be troubled by such physical indications of good health, make use of depilatories for their removal. Depilatories are *always* composed of strong alkalis, and usually those which are the most injurious, the *sulphurets of arsenic* and *lime*. *Le Rusina des Orientaux*, which is one of the most esteemed of these preparations, consists of a solution of quick lime and orpiment, (*sulphuret of arsenic*), and a test of its good quality on preparation is, that it will remove the barbs of a feather. It is, indeed, a powerful caustic, and its use requires great circumspection. An analogous preparation is generally kept by our apothecaries, and is in common use by hair dressers. The formula for its preparation is: best lime, slaked, three pounds; orpiment, half a pound. Mix by means of a drum sieve.

Preserve the same for sale in well corked bottles. Directions for use: mix with a sufficient quantity of water to render it of creamy consistence, lay it over the hairs to be removed, for about five minutes, or until the smarting produced by the application renders its removal necessary. The part is then to be lathered and shaved (or scraped) with an ivory razor or ivory paper-cutter; then thoroughly wash the part with warm water, and anoint with cold cream. Simpler compounds are usually kept, which consist of quick lime mixed with pulverized charcoal. *Parisian cream* is composed of *quick lime* and *orpiment*, colored with pulverized anchusa bark, which gives to it a beautiful rose color. There are various other hair dyes and depilatory preparations, but these are fair samples, and are sufficient to illustrate the danger of their use. The most usual accidents following the use of hair dyes and depilatories, are erosions and local inflammations of the face and head, which sometimes leave bad scars. A case of insanity was reported from one of the hospitals of Berlin in 1855, which was attributed to the use of hair dye. On analysis, this dye was found to be composed of nitrate of silver and salts of lead.

TOOTH POWDERS and MOUTH WASHES are also commonly classed as cosmetics. But inasmuch as they constitute a highly *sanitary* class of compounds, which cannot be said of other cosmetics, they are worthy of a better place. Tooth powders, soaps and washes, when properly constituted, greatly assist in preserving a healthy condition of the teeth, and therefore contribute to the act of mastication, and so promote healthy digestion. The ill effects resulting from the accumulation of "tartar" on the teeth is well known to most persons; and in certain states of the system, the secretions of the mouth are also well known to exercise an injurious effect upon the teeth. The daily employment of a *cleansing dentifrice* will not only remove the oftentimes injurious remains of food, but will also generally prevent the accumulation of tartar or other injurious secretions. The state of the gums, too, and indeed the whole lining of the mouth, is often to be taken into account in the use of a dentifrice. It is plain, therefore, that these useful preparations are part of the art of medicine; and the whole train of pernicious preparations by charlatans, which usually contain strong acids, alkalies or opiums, in combination with gritty substances, should be abandoned. Under ordinary circumstances, mild soap, deprived of its disagreeable taste by the incorporation of orris, sassafras, or other bland aromatics, is unquestionably the most cleansing dentifrice, and, therefore, the best. But whenever there is any special purpose to fulfil in the use of a dentifrice, the individual would do well to consult a physician.

COSMETIC SOAPS are usually made by remelting the common curd soap of commerce and mixing with it aromatic and coloring substances, according to the quality required. Curd soap is a nearly neutral soap, made of soda and tallow. Oil soaps are also sometimes used for the same purpose. The conditions of a good toilet soap are, that it will not shrink or change shape; produce a profuse lather during the act of washing; leave the skin soft and not liable to chaps; and that it be either inodorous or have a pleasant aroma. Few or none of the common commercial varieties of soap possess these qualities, and, therefore, the object of the perfumer is to produce them without in any manner impairing the well-known properties of soap for cleansing purposes. The favorite vari-

ety of toilet soap, supposed by many to be made of the oil of sweet almonds, and therefore called *almond soap*, is generally made according to the following formula: Finest curd soap, 1 cwt.; finest oil soap, 14 lbs.; finest marine soap, 14 lbs.; otto of almonds, $1\frac{1}{2}$ lbs.; otto of cloves, $\frac{1}{4}$ lb.; otto of caraway, $\frac{1}{2}$ lb. First melt one-half of the curd soap, and then add the marine soap; when this is well "crutched," (stirred in,) add the oil soap; and finish with the remaining curd. When the whole is well melted and thoroughly mixed, add the perfumes, quickly mix them, and turn into the moulds. The finer qualities of scented soap are made by adding the perfume after the melted soap has become nearly cold. This is done in order to avoid the loss, by evaporation, of the more costly perfumes. They lose about twenty per cent. of their aroma if added to the compound while it is hot. For cheaper varieties of toilet soap, the proportion of perfume is not only much lessened, or altogether omitted, but common rosin soap is substituted for that which is made of oil. "*Honey soap*" is made of yellow soap and fig soft soap, scented with the otto of citronella. It contains no honey.

It would be an endless task to undertake to characterize the qualities of the variously-named toilet soaps. Of their composition, the above examples will suffice. Fortunately, the aromatic substances are too costly to be added in quantities large enough to injure the well-known qualities of soap, or to have any injurious effect upon the skin. And, since they rather serve as temptations to the use of soap, and, therefore, to the promotion of cleanliness, the practice deserves encouragement. Of *medicated* soaps, however, the case is altogether different. It is plain that the variety of substances which may be incorporated with soap is endless; but it is equally plain that if medicine of any kind is to be applied to the skin, it is much better to apply it *after* the use of soap than with it, and that it is much better to apply medicine under the direction of a physician than that of a soap vender.

Finally, in the choice of cosmetics, of whichever class, those known to be inert should always be preferred to those of doubtful properties, however agreeable to the senses. And it should constantly be borne in mind, that *whatever is a foe to health is an enemy to beauty.*

DANGEROUS COSMETICS.—At a recent sitting of the Academy of Medicine here, Dr. REVEIL read a paper on the necessity of preventing perfumers from selling poisonous or dangerous articles, which should be left exclusively to the responsibility of regular chemists, and not sold without a physician's prescription. "To show the danger there is in allowing the unchecked sale of certain compounds," he said, "I need but state that arsenic, the acid nitrate of mercury, tartar emetic, cantharides, colchicum, and potassa caustica, form part of their ingredients. The kind of soap called lettuce soap, which is sold with the announcement that it has been acknowledged by the Academy, does not contain the slightest trace of lettuce. This and other soaps are all colored green by the sesqui oxide of chromium, or of a rose color by the bi-sulphuret of mercury, known as vermilion. Some, which are cheaper, contain thirty per cent. of insoluble matter, such as lime or plaster, while others contain animal nitrogenous matter, which, having escaped the process of saponification, emits a bad smell when its solution is left exposed to the air."

CHAMBERS OF COMMERCE AND BOARDS OF TRADE.

THE CHAMBER OF COMMERCE OF NEW-YORK.

Monthly Meeting, January 2, 1861.

THE regular monthly meeting of the Chamber of Commerce was held at 1 o'clock, Thursday, January 2d. A. A. Low, Esq., Second Vice-President, in the chair. About fifty members were present.

MESSRS. JOHN E. FORBES, No. 103 Wall-street; DANIEL WILLIS JAMES, No. 21 Cliff-street; JOHN SLADE, No. 22 Park Place; GEORGE CABOT WARD, No. 56 Wall-street, and DAVID WATTS, No. 45 Broad-street, were elected members.

Arbitration Committee.—HON. GEORGE OPDYKE having resigned his position as Chairman of the Arbitration Committee, in assuming the duties of Mayor of the City of New-York, Mr. ROBERT B. MINTURN was unanimously elected Chairman, and Mr. JOHN C. GREEN as a member of the committee.

Protection of Merchant Vessels against Privateers.—Capt. C. H. MARSHALL, from the committee appointed to memorialize Congress on the subject of protecting merchant vessels in the European trade against rebel privateers, reported the following, and spoke in very favorable terms of the gratifying reception which the committee has met with, when presenting the memorial at Washington.

Memorial to President Lincoln.—The Special Committee of the New-York Chamber of Commerce reported the following memorial, which, on the 10th of December, was duly transmitted to the President of the United States, was read.*

Mr. THOMAS TILESTON, in connection with the report, spoke of the pleasure and satisfaction derived by the committee from a visit to the Treasury Department, and pronounced a high eulogy on the Assistant-Secretary, Mr. HARRINGTON, for the precision, system and accuracy with which business was conducted, especially in regard to the large amount of treasury notes.

The New Tariff.—*Re-assessing Goods in Bond.*—The Chairman (A. A. Low) brought to the attention of the Chamber the tariff of December 25, which he considered, in some of its features, a departure from the general principles which have governed the legislation of this country. At no previous time in our history has a tariff bill been passed so suddenly and unexpectedly, or one embracing two features so objectionable, viz: In its action (according to the interpretation given by Secretary CHASE) on goods on shipboard, which have heretofore been exempt, and on goods in bond. He was not quite sure that the act would be made to revoke the exemption given to goods on board ship; but that goods in bond, which had been assessed already, should be re-assessed at a

* See MERCHANTS' MAGAZINE, for January, pages 42 and 43.

higher rate, was an injustice which he felt assured Congress never contemplated, and which the Chamber should remonstrate against.

Mr. ROYAL PHELPS moved the following :

Resolved, That the merchants of New-York have seen with regret the construction which the Secretary of the Treasury has put upon the late act of Congress in relation to an increase of duties on certain articles of merchandise, and that the Executive Committee of this Chamber be instructed to prepare a remonstrance to its being made applicable to goods in bond, imported prior to the passage of said law, and goods on ship-board on the 5th of August.

Mr. OPDYKE agreed with the Chairman in considering the policy of taxing goods in bond as absolutely wrong ; still, on a careful perusal of the bill, he thought the Secretary of the Treasury justified in the interpretation he had put upon it. He felt confident that Congress had not intended to act in this manner, and that on the remonstrance of the Chamber they would pass an explanatory act, modifying it.

Mr. PHELPS thought the construction put upon the bill by Secretary CHASE a forced one. To plain merchants, and (as he was informed) according to numerous legal authorities, goods are "imported," when the merchant presents his manifest at the Custom-House ; therefore the section declaring that from and after the passage of the act, in lieu of duties heretofore imposed by law, there shall be levied, collected and paid on articles "imported from foreign countries" the duties named, did not fairly apply to goods in bond. No merchant, on reading the bill, as it was published some days ago, would think of putting such a construction upon it ; otherwise they might have availed themselves of the time intervening the publication of the bill and its going into operation, to have paid the duties heretofore assessed, and entered their goods. But goods in bond were already "imported," and could not be said to be imported again. He attributed the interpretation given by Mr. CHASE to the distracted state of public affairs at the present moment, especially in view of the suspension of specie payments by the banks.

Mr. JONATHAN STURGES stated that he was informed by members of the committee who prepared and reported the bill, that there was no intention to apply it to goods in bond. By the interpretation given to it, the government might reach articles in the hands of the consumer.

Mr. OPDYKE was satisfied that Congress had not such an intention in passing the bill ; but as the language stood, it warranted the interpretation given by Secretary CHASE. He read the entire clause, to show that it required the increased duties to be paid hereafter on all merchandise imported, whether imported before or subsequent to the passage of the act. The Assistant Secretary told him (Mr. OPDYKE) that Mr. CHASE would review his decision. Undoubtedly if he considered his interpretation erroneous, he would at once modify it ; but he knew the Secretary well enough to be sure, if he arrived at the conclusion that his first decision was right, it would be useless to expect him to change it.

Mr. P. M. WETMORE hoped the committee of the Chamber having in charge the interest of the commercial community would consider the whole matter of the bill in a wide sense, and would remonstrate against any legislation on tariffs which did not give time for the facts to reach commercial cities. Did any one suppose that this bill in any of its elements had reached San Francisco before it became a law ? How could

merchants deal with each other, or with the government, under such circumstances ?

Mr. TILSON remarked that every tariff heretofore enacted had been prospective. That this should be retrospective, was opposed to every consideration of justice and to the spirit of our government.

The resolution was passed unanimously.

Internal Taxation.—Mr. RICHARD LATHERS, in the same connection, offered the following :

Resolved, That the Executive Committee of the Chamber of Commerce be a committee, with power to add to their number, to consider and digest a respectful memorial to Congress, asking for a speedy passage of effective laws by which such equal taxation shall be levied on the several States, and a judicious system of excise as to sustain the public credit, and form a stable basis for payments of the interest, and the ultimate liquidation of the principal of the public debt.

In proposing the resolution, Mr. LATHERS said :

The finances of the country have now reached a crisis, which, if not generally obvious cannot fail to alarm the mercantile interests. The rebellion has not only destroyed a large part of our domestic commerce, impaired our mercantile capital, but has seriously affected our foreign commerce, both for merchandise and shipping. The patriotism of a loyal people has, notwithstanding, thus far nobly sustained the efforts of the government by large armies, and ample means to sustain them in the field. Perhaps this Chamber, by the patriotic energy of its leading members, has already performed its whole duty to the important interest it represents, in the early struggle to maintain the integrity of the Union against secession and its train of evils. But it was well said by a distinguished soldier, "that nothing was done till all was accomplished." And as the finances of the country are likely to become seriously deranged, our commerce and other industrial interests much impaired, if not destroyed, by vicious or inert legislation, and as the government credit is seriously imperilled, and its future large negotiations of doubtful success, it would seem proper that this Chamber should call the attention of Congress and the public to the necessity of sustaining the administration by practical and speedy legislation, for putting our fiscal matters on a permanent footing, worthy of a great and loyal people, whose means are as ample as their patriotism is earnest to sustain the Constitution and the Union. It is to be regretted that too much time has been spent by many of our representatives during the present session of Congress in profitless discussion of subjects of no practical interest, and in feeble investigations of misfortunes and frauds always incident to war, and only to be corrected by future watchfulness, rather than by crimination of the parties involved. In times like these the government must necessarily make many blunders, and officials commit many indiscretions ; yet, to be extreme in criticism and captious in non-essentials, is to contribute materially to defeat the cause, although, perhaps, the punishment of the individual is all that is intended. The government is only on trial at the ballot-box ; and so long as it conforms to the Constitution and the laws made under it, no citizen has a right to withhold a full and hearty support of all its measures for sustaining the law and the supremacy of the government over every State of the Union. Any thing short of this is unworthy of a good citizen ; and the factious attacks covertly directed against the administration and its military com-

manders by individuals holding extreme opinions, for the purpose of driving them counter to their constitutional duties or official judgment, is little short of rebellion. But one impulse should now move the public heart—to sustain the government by strong arms and ready purses in defence of the Union. Discussion of abstract policy is now out of place. The civil government, and the military commanders under it, decide the policy of their respective jurisdiction, subject only to the Constitution and the laws; while the province of the people and their representatives is most usefully filled by practical legislation and earnest efforts to sustain the war to a successful issue, by men and money, freely and promptly given. It is unfortunate that the advocates of protection should have availed themselves of the present national crisis to still further paralyze commerce by the prohibition of so large a part of our foreign imports, and the destruction of our carrying trade. It has done much to estrange friendly foreign powers from us, and tends to alienate the affections of the West from the East, whose manufacturers reap great advantages at their expense under the high tariff. Yet, great as are these evils, we are threatened in addition with an unconvertible currency, an enormous public debt, and, I fear, an impaired public credit, unless Congress can be induced to come up to the exigency of the times, with the wisdom and energy of statesmen who desire to serve their country by practical measures of relief, nationally and not sectionally considered. The credit of the government can only be sustained by adequate taxation of all the interests and in all the sections of the country. If the government is not sustained, all interests perish with it, and no section is worthy of representation in Congress which shall neglect or refuse to bear its fair share of the public burden; and no representative is worthy of public confidence who shall defer to such a constituency under any pretence whatever. These are times that individuals and communities are to be estimated by their acts. Money is strictly a practical issue with nations; large expenditures cannot be liquidated by mere professions of loyalty to the government, and loud denunciations of rebellion on the part of individuals, whose purse-strings are unmoved by their patriotism. War always presents a practical test to the individuals of a nation, not only as a question of personal bravery, but also of liberality; and financiers discount public stocks on good terms in proportion as such liberality is endorsed by taxation adequate for the ultimate redemption of such bills as are drawn in part on posterity. The continental issues of our own nation and the French assignats became worthless, because not properly endorsed by taxation; while the enormous debt of Great Britain commands public favor, and has always enjoyed public confidence at home and abroad, because simultaneously with every issue was enacted and enforced adequate taxation for a basis of the respective credits. If the people are candidly appealed to in the spirit of patriotism to sustain the government, by a prompt and liberal response in the way of taxation, I am confident of success, and not only will the public negotiations be favorably made, but the saving to the public financially will greatly lighten public burdens and future taxation of the country. Our banking institutions, now greatly embarrassed by their liberal aid to the government, will be relieved, and, with a well-sustained public credit, mercantile and industrial interests will revive, and in turn alleviate public burdens.

I merely suggest these crude remarks, not wishing at present to occupy the valuable time of the Chamber by elaborating them. But I am confident

that no fiscal ingenuity can now supply the place of taxation which will meet the requirements of the public credit; and I am unwilling to believe that a nation, supplying 650,000 men in defence of its government, will refuse to contribute the means to sustain them in the field.

Apart from the peculiar functions of this Chamber, in guarding the interests of commerce, many of us represent large pecuniary interests in the government issues, and may, I think, with much propriety, take the lead in seconding the earnest efforts of the able Secretary of the Treasury, Mr. CHASE, in sustaining the government, and facilitating his future negotiations in a practicable manner.

Mr. DENNING DUER seconded the resolution. The expenses of government, with the amount necessary for a sinking fund, would require a revenue of two hundred millions a year. They could not derive more than one hundred millions from import duties, and would have to make up the other one hundred millions from internal taxes.

Captain MARSHALL agreed with the resolution in every respect. We had the rebellion to put down, and it could not be done without money; and he hoped such measures would be taken as to meet the loans that merchants and bankers had given so freely. He regretted that legislation on the tariff had been conducted with a view to protection, instead of revenue; and he hoped government would make a tariff with a view to revenue alone.

The resolution was carried.

Coinage in New-York.—The Chairman remarked, that the memorial to Congress, in reference to coinage at New-York, had been promptly placed before the Senate of the United States by Senator KING, of New-York, who observed that, as the memorial contained much valuable statistical information, he desired it might be printed for the use of the members.

An interesting donation has been made to the Chamber by the Secretary, in photographic portraits of Messrs. COBDEN and BRIGHT, of England, and M. CHEVALIER, of France. The picture represents these gentlemen as engaged together in the discussion of the British-French treaty of 1861—a treaty in which Mr. COBDEN was conspicuous.

Mr. TILESTON corrected a statement he had made at the former meeting, that the legislature of New-Jersey taxed through passengers on rail-roads fifty cents a head. It is now fixed at ten cents.

Mr. DUER wished the gentleman to also correct the statement that the State had made \$600,000 out of such tax. It did not average \$80,000 a year.

The Stevens Battery.—The Secretary read an invitation from E. A. Stevens to witness the experiments on the Stevens battery, on Saturday, January 4.

Mr. WETMORE moved the acceptance of the invitation, and also the appointment of a committee (of which the Chairman should be one) to make a report thereon.

Mr. PHELPS hoped that the Chamber would not so far depart from its legitimate business as to appoint such a committee.

Captain MARSHALL inquired of Mr. WETMORE if he was not aware the government had rejected the battery.

Mr. WETMORE desired, for that reason, to have a committee. He would have more confidence in a report from Captain MARSHALL than from the government officials.

Captain MARSHALL said he had visited it with the committee from government, and could not help pronouncing it a total failure from beginning to end. Seven hundred thousand dollars had already been spent on it, and it was stated that eight hundred thousand dollars more would be required for its completion; and, with all that, he considered it a craft that would never float.

The question being put on Mr. WETMORE'S motion, was declared carried, and the Chairman was called upon to name a committee.

The following gentlemen were nominated for membership of the Chamber of Commerce: HIRAM BARNEY, Collector of the Port of New-York, nominated by C. H. MARSHALL; RICHARD K. HAIGHT, 57 Broadway, nominated by J. SMITH HOMANS. And the Chamber adjourned.

J. SMITH HOMANS, *Secretary*.

CHAMBER OF COMMERCE, SAN FRANCISCO, Nov. 29th, 1861.

STEAM TO CHINA.

At an adjourned meeting of the Chamber of Commerce, San Francisco, held Wednesday, Nov. 27th, 1861, the following memorial was unanimously adopted, and copies ordered to be sent to the honorable Senators and Representatives of California in Congress, and to the Chambers of Commerce and Boards of Trade in the Atlantic cities:

San Francisco, Nov. 27th, 1861.

GEORGE H. KELLOGG, Esq., *President Chamber of Commerce:*

Dear Sir,—Your committee, appointed under resolution of the Chamber, to take necessary steps to call the attention of the Congress of the United States to the importance of establishing a steam mail line from San Francisco to Japan and China, beg leave to report:

That they have availed themselves of all the information at their command, and of the knowledge of the subject-matter in consideration, both in a commercial and nautical point of view, possessed by many of our citizens.

Your committee are deeply impressed with the importance of the establishment of this line of steamers, and its value to our State commercially; and have prepared the annexed memorial as an expression of the views of the Chamber of Commerce of San Francisco on this subject.

And, in conclusion, beg leave to suggest that members of the Chamber and citizens, who have statistical or other information on the subject, should, by letter or otherwise, convey it to our congressional representatives.

W. C. RALSTON,	HENRY CARLTON, JR.,
WILLIAM GIBB,	B. DAVIDSON,
ALEXANDER FORBES,	C. H. BALDWIN,
T. G. CARY,	ALBERT DIBBLEE.

To the Honorable Senate and House of Representatives, United States of America:

The Chamber of Commerce of San Francisco, representing the mercantile interest of California and of the American portion of the Pacific coast, would respectfully submit to the Congress of the United States, that, in their judgment, a steam mail across the Pacific, to Japan and

China, in subsidized steamers, or in armed vessels of the government, by which treasure shipments can be made and protected, is a necessity called for by the present and prospective extent of our commerce on the Pacific Ocean.

We would respectfully call attention to the fact that, from our position, our whole business, even with the States of our own Union, has to be transacted by ocean lines of packets, and that our business has been greatly instrumental in building the American merchant marine to its present power and strength. The value of our commerce to the ship-owning interests of the Union may be estimated by the freights paid in the city of San Francisco, annually, to inward-bound ships, amounting to four and one-fourth millions of dollars, while our out freights of cereals alone have been equal to the lading of seventy-five medium clippers per annum.

We would also call attention to the fact, that our business with the other States of the Union, amounting to nearly forty millions of dollars per annum, costs our State, for remittance of treasure, one and one-fourth millions per year.

And we would, as proof of the great and growing importance of the trade of this State, call the attention of your honorable body to the following statement of facts having a direct bearing on the establishment of the line of steamers herein asked for.

That recent shipments made of our gold bullion to China have been received with such favor that a great reduction in the price of Mexican dollars in this market has been made, decreasing comparatively the cost of all importations of Chinese production, paid for in bullion, five per cent., which will, if continuous, amount to near one million per annum on the business of the United States. The fact is thus established that gold bullion is a good remittance. The Chinese merchants of San Francisco are now exclusively using gold bars in preference to silver in their remittances to their countrymen. These facts are indicative that the tide of Eastern exchange has already begun to turn in favor of the gold production of California; and all indications now point unmistakably to the conclusion that, within a few years after the establishment of the line of steamers asked for, the entire production of the precious metals of California will be absorbed in the East India and China business.

That our productions and export of silver and quicksilver will rapidly increase in amount, and that it is desirable that means should be provided by which our silver may speedily and directly reach its best market, on the Asiatic coast.

That a line of mail steamships from San Francisco to China, in connection with the Continental Telegraph, will give to American merchants the advantages of more rapid communication of commercial intelligence than will be possessed by their European competitors.

That the means of regular monthly or bi-monthly shipments of treasure from San Francisco to China will have a tendency to make New-York and San Francisco the turning points in all exchange which require payments in bullion, and will increase the financial importance of the United States in our relations with other commercial nations.

That large amounts of silver, produced in the countries south of California, are now shipped to China by foreign vessels and indirect routes,

the freights and profits of which might be obtained to American commerce by the establishment of a China steam mail.

That the change of routine in our commercial arrangements with Eastern nations, consequent on the growth and commercial importance of California, is yearly increasing the number of commercial travellers who seek their Asiatic destination, or return, *via* San Francisco.

That a line of steamers across the Pacific, while extending and strengthening our own commerce, would divert the trade, passengers and commerce of other nations to our ports, and to the benefit of our ships and people. The lines of steamers on the Pacific coast already extend from Chili to Vancouver Island, which would connect with, and be tributary to, the mail line between California and China.

That close commercial relations with the Asiatic nations would tend to the growth of a merchant marine and ship-building interest on the Pacific, that would add greatly to the wealth of the nation in time of peace, and to our strength, safety and power in war.

That the wealth of our material resources, the extent of our coast and our distance from other States of the Union, renders it imperative, that in peace we should be strengthened, that we may have ability to meet the exigencies of war without that aid from the general government of which our position may deprive this State.

That with the establishment of a steam mail from San Francisco to China, the debt of the United States to eastern nations can be paid at great saving to the nation at large, and also at a great saving to the State of California, in an increased value of her gold and silver and other exports.

That our shipping and commerce, both on the American and Asiatic coast, need the protection and encouragement that an efficient steam navy only can give.

That California's commerce with China is rapidly increasing, having doubled within the last year, and that there is, in that country, a growing demand for the production of our fields and forests, which may be fostered into an extensive commerce.

That our commercial relations with Japan are precarious, from the want of frequent presence of an adequate naval force.

That foreign nations are active and persistent in efforts to monopolize the commerce of the Asiatics, to the detriment of the American commerce on the Pacific.

That the aggregate of tonnage arriving at San Francisco, in 1859, was 598,631 tons; of which 47,519 tons cleared for China, and 18,378 tons for other ports in the East Indies. The arrivals from China, 27,814 tons; from other ports in East Indies, 10,780 tons, on which the freight values were near four hundred thousand dollars, and cargo values, \$2,662,241.

That our import of treasure for the year 1859, was \$2,516,152; and our export of treasure, \$47,640,462; of which \$3,100,755 were sent to China in forty-five vessels. The amount shipped in 1860, \$3,374,680, in thirty-two vessels.

That our export of commodities, exclusive of bullion, have increased three millions within the last year, amounting, for the year 1860, to \$8,532,439; of which amount, \$4,918,336 were the productions of our State. The export of barley increased from 15,000 sacks, in 1854, to

163,249, in 1859; while our wheat export, from 4,067 sacks, valued at \$14,900, in 1854, reached the valuation of \$1,854,259, in 1860. Our export of wool, in 1854, was valued at \$14,000; in 1860, its valuation was \$392,502; showing an amount of progress in material interests and general wealth, under all the disadvantages of distance from the other States and the central government, indicative of what our future effort will accomplish.

That for the protection of the American commerce of the Pacific, large steamers are not required; and that the cost of naval service on this ocean may be much lessened if a portion of the steamers are engaged in the carriage of the mails and treasure freights, as such steamers, when necessity requires, are at the speedy control of the commander of the San Francisco and China naval stations, having the entire naval force of the North Pacific within a month's call of the Department, making a less force necessary in time of peace, and creating a readiness and efficiency in time of war.

That, as a progressive people, we believe it desirable to use our steam navy in forwarding the interests of commerce—a desire which is almost a necessity, from the amount and value, and the dangers to which our specie shipments are exposed.

That although this service may be rendered American commerce by the vessels of our steam navy, a less interrupted service could be made by subsidized steamers, whose efficiency for warlike purposes may be insured by frequent official inspection.

That our treasure exports are sufficient, not only to pay the annual balance of trade due from the United States to eastern nations, but also a portion of that of other nations with whom the United States have commercial relations; that, by the shipment of our bullion direct to China, American merchants will save the exchanges, interest and commissions they now pay other nations, while our State will save the costs we now pay in its transport, amounting in the aggregate to a much larger sum than the establishment of the mail will cost to the federal government.

That a steam mail line from San Francisco to China will be a general commercial benefit to the country; were it exclusively to the benefit of California, our liberal contribution to the metallic wealth and general business interest of the Union would make it our due; but in receiving this aid to our State's interest, California only shares in a benefit to the commerce of the whole Union, and of every consumer of India-grown products in our population.

Your memorialists would also say, in conclusion, the mail line across the Pacific cannot, for many years, be established without the aid of government, and that the aid and protection we seek is a necessity of our present commerce, and an enterprise, the great importance of which, to the United States, can scarcely be over-estimated; we therefore pray your earnest and immediate attention to the subject of this memorial, in the confident hope that you will grant the relief asked for, by subsidizing a mail line of steamships from California to Japan and China, or give such other relief as may appear for the best interests of the United States and the States of the Pacific coast.

[Attest.]

WM. R. WADSWORTH, *Secretary.*

GEORGE H. KELLOGG, *President.*

TRADE WITH CHINA, JAPAN AND THE AMOOR.

MEMORIAL OF P. M. D. COLLINS, ESQ., LATE COMMERCIAL AGENT OF THE UNITED STATES AT THE MOUTH OF THE AMOOR.

To the Chamber of Commerce of the State of New-York :

THE undersigned would most respectfully and earnestly represent unto your honorable body, that he has, for several years past, been occupied in attempting to bring the attention of our government as well as our merchants to the development of a new field of commercial enterprise, viz., Northeastern Asia.

In April, 1856, he obtained the appointment of "Commercial Agent for the Amoor," and, having proceeded immediately to Russia, succeeded in procuring the authorization of the Emperor ALEXANDER II. to visit the Amoor country.

In December of the same year he set out from Moscow, and, after a voyage of some five thousand miles through Siberia, reached the headwaters of the Amoor at Cheta.

Having spent some months in visiting the gold and silver mines, and other objects of interest in Trans-Baikal, he embarked on the river Ingodah, an affluent of the Schilkah, which flows into the Amoor, and reached the Strait of Tartary in August, making a continuous voyage on the three rivers of some twenty-six hundred miles, to the Pacific Ocean.

Having also visited Japan, he proceeded to Kamschatka, and sailing thence, *via* the Sandwich Islands, reached San Francisco late in the fall of 1857.

This voyage, undertaken purely in a commercial point of view, comprehended, as a natural result, the practicability of steam, rail-road and telegraphic communication over and through the country visited.

Without dwelling on either the first or second, which have been fully reported upon to our government, he will speak only of the third telegraphic communication.

The country over which he passed, much to his surprise, from all reports and accounts previously received, proved to be much more favorably adapted to telegraphic communication than his most sanguine expectations had led him to hope.

There is absolutely nothing in the climate, the country, the inhabitants, or the absence of inhabitants, that militates to as great an extent against the practicability of telegraphic communication as we have on our Pacific line, from St. Louis to San Francisco.

Starting from Moscow, we have an uninterrupted land route, mostly along a great imperial highway, to the mouth of the Amoor, a distance of seven thousand miles.

After reaching the mouth of the Amoor, we have a choice of three routes by which to reach, over the intervening space of some three thousand miles, the shores of America.

It is not necessary to discuss at any length the relative merits of these various routes. In my humble opinion, the capital undertaking the enter-

prise of constructing the line will determine the best route, from a purely financial point of view.

The undersigned has already, in various preliminary modes, proceeded to bring the question of European-American telegraphic union across Asiatic Russia, before the Emperor of Russia, the Canadian Parliament and the Congress of the United States.

It is argued in Russia that, inasmuch as the United States, in view of her vast commerce with Europe, is more largely interested than Russia in the consummation of the enterprise, should lead off in the encouragement of the proposition.

This argument really seems to have considerable force now, inasmuch as Russia has commenced, on her own account and charge, the construction of a continuous line to connect Europe with the Pacific at the Amoor, being actually more than half of the whole distance from St. Petersburg to San Francisco.

At the last regular session of Congress a memorial was presented, asking the co-operation and aid of our government, in making the proposed survey and reconnoissance of a route for a telegraph line, from the Russian frontier, adjoining the British possessions on the Pacific coast, to the mouth of the Amoor.

The right had previously been obtained from the Russian government to make the survey, in view of connecting the Russian telegraph, which is to terminate at the Amoor, with our system of telegraphs, either at San Francisco or St. Louis.

The grant of the survey by the Imperial government contemplates the ultimate union of the whole world telegraphically, over the Russo-American line.

Since these negotiations were set on foot, St. Louis has been united to San Francisco by the construction of the Pacific telegraph; consequently the whole American system has touched the shores of the Pacific Ocean.

In my correspondence with the Russian government, the original proposition to tap the European system at Moscow has been abandoned, in consequence of the order of the Emperor authorizing (commanding) the Russian government telegraph to be pushed east to the Amoor.

Consequently, we have now only to discuss the construction of the central link in this world-encircling chain, from the Amoor to San Francisco; and, even while we are writing, a line is in course of construction, uniting the California lines and penetrating north to the Columbia River.

Thus the gap is being rapidly closed up, and the undertaking, which seemed encumbered with so many difficulties but a year or two since, begins to assume a less formidable appearance. From the Columbia to the Amoor is less than five thousand miles; it is over this space that we have now to direct our whole attention.

There is not the least necessity to set forth the advantageous results to commerce, and the national benefits to be derived by the United States as a nation, from telegraphic union with Europe; the question, in all its bearings, is well and fully comprehended by your honorable body.

The object now proposed is to get the assistance of our government in aid of the enterprise; first, a survey of the route and a subsidy, then such other and further aid as Congress can be induced to grant.

Your memorialist would, therefore, in view of the foregoing premises, ask of the Chamber of Commerce such action upon the subject matter—European-American Telegraphic Union, *via* the North Pacific—as in the interest of commerce may be deemed suitable and proper, so that the action of your body may, in a legitimate and proper manner, be presented to the Congress of the United States, now in session, in furtherance of, and in aid of, said telegraphic proposition.

All of which is most respectfully submitted.

PERRY McD. COLLINS.

New-York, December 5th, 1861.

RECENT PROGRESS OF THE MAGNETIC TELEGRAPH.

I. THE PACIFIC TELEGRAPH. II. THE CALIFORNIA TELEGRAPH. III. THE MALTA AND ALEXANDRIA TELEGRAPH. IV. TELEGRAPH IN EUROPE. V. TELEGRAPH EXTENSION ON THE PACIFIC.

THE PACIFIC TELEGRAPH.

ON Thanksgiving day, the 28th ult., says the Rochester *Union*, a large party of the workmen engaged in constructing the Pacific telegraph from the western borders to Salt Lake City, under the direction of Mr. CREIGHTON, arrived at Omaha on their return. The line had been constructed previous to July, 1861, as far west as Julesburgh, which is on the Platt River, 300 miles east of Denver. From that point to Fort Bridger, about 700 miles, the line was constructed by the party of which Mr. STARR was one. Mr. CREIGHTON had from 75 to 80 men employed, and they were divided in three trains. The men of one train dug the holes, those of another cut down the poles and set them, and the third put up the wire. In the three trains there were about 75 wagons and 700 cattle, including a few milch cows, to furnish milk for the men. The wagons contained from 35 to 45 hundred pounds each, consisting of wire, insulators, tools, camp equipment and provisions. The trains were said to be the best that ever started over the plains—the cattle being excellent, the wagons good, and all that pertained to the comfort of the men was in keeping with the rest. Good tents were provided, also cooking stoves, and all the necessary utensils for providing meals, and—what was quite in keeping with these—the best food that could be conveyed over the plains and mountains.

The first pole was set on the 4th of July, at Julesburgh, and the last on this section at Fort Bridger, about one hundred miles this side of Salt Lake City, on the 15th of October. The diggers' train went ahead and got along at the rate of about twelve miles per day, digging about twenty-four holes for each mile. The train which put up the poles only made about ten miles per day, and was one hundred and fifty miles behind the diggers when the latter reached the end of the route. On the plains the digging was easy, and the work went rapidly on; in the mountains it was slow, owing to the rocky soil.

The poles were selected, cut, stripped of bark by the men, and were

then drawn out by the cattle and distributed along the line. In some localities excellent timber was found in great abundance, hard pine being most plenty, though some cedar was obtained. Dead or dry pines were often found in large quantities, some of which would make three poles each of suitable size. In some localities the poles had to be cut in the mountains, and hauled over one hundred miles. Each pole is twenty feet in length, and is buried four feet in the ground. Through the Rocky Mountain Pass, where the line runs, there are points where the snow is known to cover the ground to the depth of eleven feet.

The line is well put up, and is as substantial as such a line can be. It has a single wire, not exposed to damage from the falling of trees, as care was taken to avoid every thing of that kind.

The route adopted was mainly along the road, across the plains and through the mountains. To shorten distances, where the road ran in a serpentine form, the telegraph takes a direct line, following the general course of the road. The track pursued by the western trains over the plains is very crooked, often made so by the cattle dying in the path. When an animal falls, its carcass is seldom removed from the track, except as the wolves carry it away by piece-meal; and trains which follow turn out to avoid it, thus making a crooked track, for the bones of thousands of animals lie bleaching along the great paths that lead from the Missouri to the Pacific.

The constructors of this telegraph line met with no hostile Indians, though they saw many of the natives along the way, and sometimes suffered by their thieving depredations. The Indian Agent at Deer Creek, sixty-five miles above Fort Laramie, told Mr. STARR that one of the Sioux chiefs conversed with him about the telegraph project before the poles were set, and said that he understood that poles were to be set sixteen feet high, and then strung with wires closely from top to bottom. As this would make a wire fence, all the buffaloes and other game would be kept from coming down to the south. He looked upon the project with disfavor; but when he understood that there was to be but one wire, and that sixteen feet above the ground, he was quite relieved of his fears, and appeared to be satisfied. Speaking of the manner in which the natives regard the telegraph, Mr. STARR says the antelopes were timid and distrustful. Herds of them crossing the plains would stop when they came to the telegraph, and cautiously examine the poles before venturing to pass between them.

The stations of the telegraph operators are chiefly at the stations of the mail company, from fifty to one hundred miles apart. There are usually two or three persons at each station, taking care of the mules of the stage company, and these are all the society the operator has. The work of repairing the same must, for the present, at least, be performed by the operators going out when they find communication with the next station interrupted. The duty of an operator and repairer is any thing but a pastime, and to perform it well requires hardy, courageous men, who are not afraid to be alone, and to contend with snow storms and whatever else they may meet in that vast wild region over which they must sometimes travel. The right men will, in time, be found in the right places; and of the successful working of the telegraph to the Pacific, none are more confident than the men who constructed it, and who, therefore, best know what obstacles are in the way.

CALIFORNIA TELEGRAPH TARIFF.

The rates as fixed from St. Louis are according to the following table :

First 10 words,.....	\$ 4 25
Next 90 words, (each,).....	36
Next 400 words, (each,).....	24
Next 500 words, (each,).....	18
After 1,000 words, (each,).....	12

These rates for the lowest amount of matter telegraphed strictly conform to the act of Congress, which limited the maximum to \$4 25 for the first ten words, and thirty-six cents for each additional. The rates from New-York to San Francisco are \$5 95 for the first ten words, and forty-eight cents for each subsequent word, the difference being the present charges between New-York and St. Louis. As yet, through rates are exacted upon all despatches to Salt Lake City, Carson City, and other intermediate stations on the route, no way rates having so far been determined on. This irregularity will, however, it is said, be of only short duration, as at a meeting of the company, soon to be held in New-York, a way schedule will be agreed upon. The impression that the present rates are too high, either for the accommodation of the public or the interests of the company, is one which time may confirm. Such is the opinion of some of the corporators.

The President's message of December, 1861, was telegraphed from New-York to San Francisco in thirty-six hours. The cost of this was about one hundred and fifty-six dollars. The difference in time between these two places is about three hours. The ordinary time occupied in the transmission of a short message is about three hours, so that a short message, leaving New-York at 9 A. M., will reach San Francisco at 9 A. M., their time.

OCEAN TELEGRAPH.

The success of the Malta and Alexandria telegraph is a guarantee of the practicability of establishing oceanic telegraphic communications between every part of the habitable globe. An unbroken cable of 1,400 miles in daily use is now an accomplished fact. A brief glance at the map of the world will satisfy an observer, that, by means of cables not exceeding that in length, telegraphic communication may be established between the four quarters of the globe. Europe and Asia are adjacent, but the former continent is now connected with one of the most important ports on the African coast by the cable which has just been laid, taken in conjunction with its northern continuation to Sicily and the south of Italy. Between the British Isles and North America communication may be established by laying three cables, none of which equal in length two-thirds of the cable which now unites Malta with Alexandria. Greater difficulties may possibly oppose themselves in consigning to a safe resting-place at the bottom of the North Atlantic Ocean a thousand miles of wire, than in the comparatively placid water of the Mediterranean Sea; but they are not difficulties which are insurmountable.

In carrying a telegraphic cable from Scotland, by the Faroe Islands, to Iceland, and thence to Greenland, and thence to Newfoundland, the chief obstacle, in a commercial point of view, will be the loss incurred in case of a mishap. Between these points the cable, when once laid, must be regarded as laid for ever. The notion that a submarine cable once laid with safety would never need repair, has long since exploded. So well aware are the contractors, to whom we understand the government have let for a term of years the Malta and Alexandria cable, of the necessity of keeping it in constant repair, that a small steamer will be kept continually employed to recover and repair it at any place it may prove defective. The impossibility of repairing, if needful, an Atlantic telegraph, however laid, must always prove the greatest obstacle to the successful issue of an undertaking having for its object the establishment of telegraphic communication between Europe and America. Still, however, with the spectacle of a cable upwards of 1,000 miles in length, in good working order, we are much mistaken if a second attempt is not shortly made to bridge over, in some way or another, the vast expanse of the Atlantic Ocean.

TELEGRAPH IN EUROPE.

At the late meeting of the British Association for the Advancement of Science in Manchester, a telegraphic soirée was held in the large Free Trade Hall, at which were present all the most distinguished men connected with telegraphs in the kingdom. A great variety of instruments was exhibited, showing a constant progress in the mechanical part of the science; and, to test the power of the batteries to send a message any distance, the continental lines were connected, so that a message could traverse the whole of Europe without interruption. With what result, the following record, which we take from the *Mechanics' Magazine* of London, will show:

At 8 P. M. messages were exchanged with the Hague; at 8.10 P. M. with Hamburg; and at 8.20 P. M. with Berlin. At 8.11 P. M. a message regarding the weather was sent to St. Petersburg, and at 8.52 the answer was returned. At 8.55 the second question about the temperature was sent to St. Petersburg, and at 8.57 the reply was received.

At 9.5 P. M. St. Petersburg joined up the Manchester and Moscow lines, when Manchester put the following question to Moscow:

Message.—"9.6 P. M.—Please say what weather you have, and also your time."

Reply.—"9.7 P. M.—It is raining. It is 36 minutes past 11."

At 9.17 P. M. Moscow joined up the Manchester and Odessa lines, when the following correspondence ensued:

Message.—"9.18 P. M. Manchester asks, "What is your weather and time?"

Reply.—"9.20 P. M.—Weather cool, but very clear. Windy. 6 minutes past 11."

Message.—"9.21 P. M. Manchester asks, "is the harvest over?"

(Here is rather a longer interval—the Odessa clerk having been called away from his instrument.)

Reply.—"9.32 P. M.—The harvest is over, and the grapes are now in season."

From Odessa the line was extended to Nicolaieff, on the northwest coast of the Black Sea; and, but for a storm raging, which interfered with the currents of electricity, it would have been extended to Taganrog, on the northeast coast of the Sea of Azoff, a distance of 3,100 miles. Such were the immense spaces traversed by the electric spark sent from the Hall in Manchester, where the British Association was assembled.

THE TELEGRAPH EXTENSION ON THE PACIFIC:

The *Alta California* of a late date says, Oregon has no magnetic telegraph as yet, but it is arranged that before the middle of 1862 Portland shall be in communication with the wires of California, and through them with St. Louis, New-York and Boston. Mr. J. E. STRONG, who has built many miles of telegraph in California, has spent some months in Oregon, examining the route from Yreka to Portland, obtaining subscriptions and making contracts for the erection of the line. Yreka, the largest town in the extreme north of this State, on the main stage-road from Sacramento to Portland, 320 miles distant from the former place, 350 from the latter by the wire, and 25 miles from Oregon, is now in telegraphic connection with the large towns of California. The main body of the population of Oregon is in the Willamette Valley, on the northern border of the State, and 100 miles from the ocean. Portland, the chief commercial town, is only 10 miles from the Columbia River. Mr. STRONG measured the distances from Yreka, by the stage-road, and found them to be as follows, from place to place:

	<i>Miles.</i>		<i>Miles.</i>
To Jackson,.....	62½	To Albany,.....	10½
To Cañonville,.....	69½	To Salem,.....	25
To Rosebury,.....	27	To Oregon City,.....	37
To Oakland,.....	18	To Portland,.....	13
To Eugene City,.....	57½		
To Corvallis,.....	40	Total,.....	300

Jacksonville is in the Rogue River Valley; Cañonville, Rosebury and Oakland, in the Umpqua Valley, and Eugene City, Corvallis, Albany, Salem, Oregon City and Portland, are on the banks of Willamette River. The Rogue and Umpqua rivers run westward to the Pacific, and the Willamette runs northward to the Columbia. There are three mountain ranges to be crossed between Yreka and Portland, the Siskiyou range, between the Klamath and Rogue valleys; the Umpqua range, between the Rogue and Umpqua valleys; and the Carapooya range, between the Umpqua and Willamette. The Siskiyou mountains are bare to the summit, but all that portion in Oregon is covered with thick timber, and the other mountain ranges are also heavily timbered. The valleys contain some evergreen and oak forests, but about half the distance from Yreka to Portland is over prairies.

The material for poles is abundant, and the earth along the route is favorable to their erection. The poles will be sawn eight inches square at the bottom, four inches at the top, and 22 feet long, of which length three feet will be put into the ground. The poles will be 88 yards apart,

requiring 20 to the mile. The wire will be No. 9, about a sixth of an inch thick—a size larger than that used in California—and 320 pounds will be used in a mile. It is impossible to determine in advance the precise cost of a long line of telegraph, but Mr. STRONG makes the following estimate per mile:

Wire, 320 lbs.,.....	\$ 30
Twenty poles, on the ground,.....	45
Setting poles,.....	8
Freight on wire,.....	15
Putting up wire,.....	20
Twenty insulators, improved kind,.....	20
	\$ 138
Total per mile,.....	\$ 138

This is exclusive of the cost of offices, batteries, superintendence and collecting subscriptions. The company will be styled "The Oregon Telegraph Company," with a capital stock of \$75,000, and its main place of business in Portland. The line will not stop, however, at Portland, but will extend seven miles further, to Vancouver, which is a town of note, and is the chief military post for Oregon and the eastern part of Washington Territory. After the Oregon line shall have been completed, it will not be long before a line will be built through Washington to Olympia, Stellacoom, Port Townsend, and thence across to Victoria. The Russians have already a line complete from St. Petersburg to Irkutsk, and they are now extending it to Nicolaiefsky, at the mouth of the Amoor, from which point they promise to continue it across to Sitka. As to the possibility of this, there can be no reasonable doubt. Either by way of the Eleuthian Islands or by Behring's Straits, not more than 150 miles of submarine wire is necessary in any one place. The distance is about 3,500 miles from the mouth of the Amoor to Sitka, and thence 900 to Portland.

ARMY TELEGRAPH.

In July last the French Minister of War caused some experiments to be made in the Champ de Mars with the army telegraph. Let us see in what these experiments consisted: A certain number of mounted artillerymen were followed by a vehicle properly attached, in which were placed lances designed to serve as telegraph posts, and also the electric conducting wire. At a given signal they quickly extended themselves over the line; this signal was given as soon as the extremity of the conductor was fixed to the earth by means of a stake. At the distance of thirty metres a horseman dismounted, took a lance given him by an artilleryman in the carriage, and set up the lance in the earth, causing it to make half a turn so that the head of the lance should be encircled by the electric wire. The horseman then made the lance fast by means of two guys fixed to it, and fastened to the earth with two stakes. The same operation was performed rapidly by other horsemen, but it was found that the lances were required not more than once in one hundred metres.—*Silliman's American Journal of Science, January, 1862.*

MR. TOWNSEND HARRIS, MINISTER TO JAPAN.

Mr. HARRIS having desired a recall from Japan, the President has nominated ROBERT H. PRUYN, Esq., of Albany, as his successor.

An article has recently appeared in a daily paper of New-York, extracted from the San Francisco *Bulletin*, which states that the American merchants in Japan have requested the recall of Mr. TOWNSEND HARRIS, our minister resident in that country, on the ground that he unnecessarily restrains American citizens from visiting Yeddo, the capital city of the Empire.

Unexplained, this statement would detract from the well-won reputation of Mr. HARRIS as a faithful minister, watchful of the interests he represents, and careful to secure every just privilege to his countrymen. We therefore set this matter right before those who feel an interest in the question.

In the present instance, however, it seems proper to allude to the binding obligation resting on Mr. HARRIS to maintain a definite policy in the administration of his important trust. The difficulties which he was to encounter with his venturesome countrymen, ever ardent in the pursuit of pleasure or profit, were apparent to Mr. HARRIS from the moment the treaty was signed, yet he has never wavered for an instant in maintaining the integrity of that instrument. He had, at the commencement of his official duties, enjoined upon all his personal friends and correspondents a rigid abstinence from all public use of his private letters. All deviations from this rule of conduct on their part have been without his consent, and against his wishes.

The following passages from a private letter of Mr. HARRIS will show how carefully his conduct was guarded on this point:

LEGATION OF THE UNITED STATES, *Yeddo, August 24, 1859.*

As might be expected, every body wishes to come to Yeddo to see the sights. This very natural desire places me in a delicate position. As a matter of duty, I require from the Japanese a strict fulfillment of all their treaty stipulations, and on my part I feel bound, not only by considerations of policy, but from a high sense of justice, to observe all the stipulations faithfully and loyally.

The Japanese government is sufficiently embarrassed by the presence of the legations, and of those who have the right to visit them, and I am confident that a succession of mere visitors, passing between Kanagawa and Yeddo, would cause serious annoyance.

The Japanese say that the treaty provides for the residence of the minister after the 4th of July, 1859, and for other Americans after the 1st of January, 1862; and they say, very justly, that no one has a right to come to Yeddo before the last-named date, except the persons who are connected with the legation, or who may have important business to transact with it.

Mr. COLLINS, now at Kanagawa, desires to come up here, and, as you are probably prepared to learn, I have declined to give him the requisite authority to come. Mr. COLLINS is a gentleman of distinguished merit; he was appointed American consul to the Russian settlements on the river Amoor, in 1855-6; he made an overland journey from St. Petersburg in 1856, and returned to California, where he published an account of his observations on his extended tour. As a matter of course, he will be greatly disappointed in not being permitted to visit Yeddo. Possibly I may be censured for the course I take, but it is a course dictated solely by a sense of duty.

The following are extracts from a letter written by me to Mr. E. M. DORR, our acting consul at Kanagawa, in reference to this case, which you may use whenever you deem it necessary that my action should be defended:

Yeddo, August 22d, 1859.

Sir,—By the third article of our treaty with Japan, the city of Yeddo is to be opened to American citizens on the 1st day of January, 1862, and I am of opinion that prior to that date no person can claim the right to visit the city, except those connected with the legation, or persons who may have business with it which cannot be transacted by letter.

I am careful not to claim any rights that are not clearly set forth in the treaty stipulations, and I am not willing to ask any favor of this government, particularly as I am now in correspondence with it on the subject of my communications with the consular officers of the United States.

I should be happy to gratify Mr. COLLINS, if I could do so without compromising what I consider to be an important principle.

As this is the first case of the kind that has occurred, I shall consider it as a precedent which will be applied to all future cases that may arise; and I respectfully request you to communicate my decision to all American citizens who may inform you of their wish to visit Yeddo prior to the 1st of January, 1862.

I am, Sir, your obedient servant,

TOWNSEND HARRIS.

To the American Consul at Kanagawa, Japan.

It will be seen by this correspondence how rigidly the American minister adhered to the stipulations which he had entered into with the government of Japan. Instead of receiving censure for his conduct in this respect, he deserves the highest commendation for thus preserving unstained the good faith and honor of the American name and character.

A letter to a daily paper in this city, published during the past week, from an intelligent correspondent at Kanagawa, under date August 15th, says:

“Mr. ALCOCK, it is thought, would make war upon Japan, if he could; and the French *chargé* would like nothing better * * * to avenge his own self-induced and imaginary insults.

"Meanwhile, the attitude which the American minister maintains at Yeddo, which is one of sincere friendship to Japan, whatever else may be said of it, is the greatest obstacle here in the way of the accomplishment of the wishes of the British and French ministers, because it makes their case a more difficult one to justify with their masters at home.

"Mr. DEWITT, consul-general, who is now here, has received replies from his own government respecting the withdrawal of the ministers from Yeddo, last January, and he says that the position taken by Mr. HARRIS, in opposition to all the others, receives the most hearty approval of his (Mr. DEWITT'S) government. Holland will not, therefore, join the crusade against Japan, if there be one."

Travellers and public writers have questioned the reality of the advantages we had expected to derive from the opening of commerce with Japan. In all his letters from that country, Mr. HARRIS has dwelt earnestly on these advantages as a certain result of the good understanding we have attained with that strange, unenlightened people. He has never counted upon realizing these advantages on the instant, nor until, in the fullness of time, the Japanese should be instructed to know and appreciate the benefits and the blessings of commerce. That such a time will come, and speedily, he has frequently avowed his unflinching belief, and there is little doubt that upon his return to his native country, he will make known the grounds upon which this belief is founded.

The aid rendered by him to the English envoy, Lord ELGIN, was deemed of sufficient importance to call for a grateful acknowledgment from the minister and a munificent gift from the queen.

Mr. HARRIS has more recently rendered a similar service to the envoy from Prussia, Count D'EULENBURG, which has been courteously and warmly acknowledged, in a diplomatic note, of which the following is an extract:

Legation of Prussia, Yeddo, January 25th, 1861.

Sir,—I have the honor to inform you, that I yesterday signed, with Japanese plenipotentiaries appointed for that purpose, a treaty of amity, commerce and navigation between Prussia and Japan.

You witnessed the difficulties I encountered, and which I had to overcome.

I frankly declare, that I should never have succeeded in this without your cordial and efficient co-operation.

You not only effectually aided me as the representative of a power in friendship with Prussia, but, as a true friend, interested yourself, personally, in the success of my mission.

I shall avail myself of an early opportunity to bring this fact to the knowledge of my government; but I am anxious to state to you, on this occasion, how greatly I appreciate all the proofs of friendship you constantly gave me during my eventful stay in Japan. * * *

Please accept the renewed assurance of my most distinguished consideration.

(Signed,)

COUNT D'EULENBURG.

To TOWNSEND HARRIS, Esq., *Minister Resident of the United States in Japan.*

THE COTTON QUESTION.

I. COTTON IN EGYPT. II. AUSTRALIA. III. BAZLEY ON COTTON. IV. COTTON AND SLAVERY. V. COTTON-SEED FOR INDIA.

EXPEDITIONARY TOUR TO PROMOTE THE CULTIVATION OF COTTON.—Mr. G. R. HAYWOOD, secretary to the Cotton Supply Association, sailed on the 12th July in the *EUXINE*, in company with Dr. FORBES, (who has had considerable experience as a government official in India,) with the intention, in the first place, of spending a fortnight or a month in Egypt, during which time they purpose to have an interview with the viceroy, to urge upon him the advantage of taking energetic steps to extend the area of cotton cultivation in that country. They will next proceed to Bombay, the home government having amply furnished them with introductions, and afterwards go down to the Shedashaghur, which it is expected will ultimately be one of the best ports in India, where they are going to establish a factory for cleaning and packing cotton, and a large amount of machinery will be sent out forthwith. They also intend to visit Dharwar and Berar, where they will establish agencies; and will most likely make their way down to Madras. During their route, their inquiries will be directed to the quantity and quality of cotton which each locality can supply, and its probable price, as well as to collect all the information and give all the encouragement and assistance in their power.—*Times*.

GROWTH OF COTTON IN AUSTRALIA.—A private letter from Australia says: "The Chinese may yet be found useful in the growth of cotton in the northern parts of the country, but as yet the experiment has not been tried. Some little feeling of excitement as to the formation of plantations is felt, and, for my own part, I have much hopes of a beneficial result. The Manchester people ought to publish cheap pamphlets for circulation here, or rather in Queensland, explaining the culture of cotton, &c., and forward seed of the best quality to their friends, the curators of botanical gardens and others, so as to give the movement an impetus. A friend of mine, Mr. MOORE, of the botanical gardens, Sydney, (brother to your Glasnevin (Dublin) curator,) would be a good man for them to correspond with, and, I am sure, one who would give all the aid in his power. There are good botanical gardens in Queensland, and the capital, Brisbane, at Maryborough, Wide Bay. More to the north still, there is an experimental plantation and company formed. Another friend of mine, THOMAS BROWN, Esq., (Messrs. NAUGHTON & BROWN, Maryborough, storekeepers,) may be found of use on the ground at present most approved of. A Mr. McMILLAN is commencing at Rochampton. I may mention these matters to you, as you might have some talk with your Manchester friends."

MR. BAZLEY'S VIEW.—**MR. BAZLEY** places the cotton of Queensland foremost as regards quality. He declares it to be the best in the world, and the beauty of the cloth which it produces is unrivalled. This cotton field is of boundless extent, and the climate, too warm for the European constitution, is admirably adapted for the Coolies or the Chinese. In a district larger than France, there are not more than 50,000 inhabitants; but, under such stimulants as the present value of cotton, labor in abundance can be drawn from both India and China. It is impossible to overrate the importance of Queensland as a cotton-producing district upon densely populated countries like India and China. At no remote day, this new field may prove more valuable than even the auriferous wealth which we have been accustomed to regard as the chief treasure of Australia. And contemporaneous with the advancement of this cotton-field must be the facilities it will afford to the free labor of the eastern world, and all the social machinery therewith connected for converting the Pagan strangers into good subjects and Christians. The industry of the Asiatic is one of his characteristic features; and the impetus which the new movement will give to immigration of this class implies, development on a scale so large that it may be safely left to the reader's imagination.

THE COTTON SUPPLY AND SLAVERY.—At the annual meeting of the Bradford West Circuit Juvenile Missionary Society, England, **MR. HENRY MITCHELL**, the chairman, called the attention of the meeting to a sample of beautiful cotton grown in Western Africa, and urged the importance, now that the supply was likely to be cut off from America, of the commercial classes seeking an ample supply of cotton from other parts of the earth, particularly India and Africa. **THE REV. WM. MOISTER**, a missionary from South Africa, stated that in that part of the earth there was no limit to the growth of fine cotton, and that it was only needful to teach the native population to prepare it for importation to England, to secure a superabundance of the best and finest cotton for this market.

COTTON-SEED FOR INDIA.—In their efforts to meet, on as large a scale as possible, the requirements of the cotton cultivator of India for a better description of cotton-seed than that indigenous to the country, the Cotton Supply Association are receiving most valuable co-operation from the Peninsular and Oriental Steam Navigation Company. The directors of that company having, with distinguished liberality, signified their willingness to convey, free of freight, on account of the association, one ton of cotton-seed, by each of their steamers, to Bombay, Madras and Calcutta, the offer was, of course, gratefully accepted. The result is, that four tons of seed (Egyptian) per month are now being regularly shipped by the association to those ports from Suez. Experiments with various kinds of seed show that the Egyptian variety is admirably suited to the soil and climate of India. Samples of cotton grown from it in that country, and forwarded to the association, have been valued at a high figure, and considered finer, stronger, and more marketable, than any other received specimens from the same quarter.

COMMERCIAL REGULATIONS.

I. SALTPETRE AND ARMS. II. TREASURY DECISIONS.—1. ROUND CAST STEEL.—2. SILK LACE.—3. VELVETS.—4. DEER SKINS.—5. SADDLERY. III. MEXICAN CONVENTION. IV. CONFISCATED PROPERTY. V. TREATY WITH TURKEY. VI. EDINBURGH CHAMBER OF COMMERCE. VII. GLASGOW CHAMBER OF COMMERCE.

SALTPETRE AND ARMS.

The following is the proclamation of the British government :

BY THE QUEEN—A PROCLAMATION. VICTORIA, R.

Whereas in and by a certain statute, made and passed in the Parliament held in the 16th and 17th years of our reign, and entitled "The Customs Consolidation Act, 1853," it is, among other things, declared and enacted as follows, that is to say :

"The following goods may, by proclamation or order in council, be prohibited either to be exported or carried coastwise : arms, ammunition, and gunpowder, military and naval stores, and any articles which her Majesty shall judge capable of being converted into or made useful in increasing the quantity of military and naval stores, provisions, or any sort of victual which may be used as food by man ; and if any goods so prohibited shall be exported from the United Kingdom, or carried coastwise, or be water-borne to be so exported or carried, they shall be forfeited.

"And whereas we have thought fit, by and with the advice of our Privy Council, to prohibit either to be exported or carried coastwise the articles hereinafter mentioned, that is to say, arms, ammunition and military stores, (including percussion caps and tubes,) and also lead, (being an article which we judge capable of being converted into or made useful in increasing the quantity of military or naval stores,) we, therefore, by and with the advice of our Privy Council, and by this our royal proclamation, do order and direct that, from and after the date hereof, all arms, ammunition and military stores, (including percussion caps and tubes,) and also lead, shall be, and the same are hereby prohibited either to be exported from the United Kingdom or carried coastwise.

"Given at our Court at Windsor, this 4th day of December, in the year of Lord 1861, and in the 25th year of our reign."

The London *Times*, of November 28, says in its city article, that the saltpetre market had lately been disturbed by some large transactions on American account. Three thousand tons, an amount equal to the whole stock in London, had been bought, on such terms as to cause a rise of thirty-seven or forty shillings per hundred weight ; and it was given out that the purchase was made for the federal government. It is now suggested that the purchase was made under hasty orders, with the inten-

tion of "offering an outrage to England such as might render it difficult to obtain supplies hereafter;" and the remarkably sagacious writer who throws out this hint, also suggests that the British government should prevent the clearance of this contraband of war. It is plain that our English friends will feel much more easy, after they have had their eyes opened to one or two serious mistakes of fact into which they have been led, perhaps not without design.

Some uneasiness has been created by the announcement, in recent English papers, that large quantities of saltpetre bought in England for account of our government had been stopped. We are able to say on the highest authority that this step cannot in the least embarrass us. The government has on hand now an immense supply of this necessary article, most of which has been in store since the war of 1812. The amount of saltpetre now in government stores is, we are assured, sufficient for all emergencies; and we suppose the recent purchases in Europe, if any were really made, were intended only to add to the present store, in proportion as it was diminished in the course of the war, in accordance with that policy which induces every great government to keep on hand of this article, at all times, sufficient for a war of twenty or thirty years' duration.

TREASURY DECISIONS.

Treasury Department, December 21, 1861.

The following decisions, by the Secretary of the Treasury, of questions arising upon appeals by importers from the decisions of collectors relating to the proper classification under the tariff acts of March 2, 1861, and August 5, 1861, of certain articles of foreign manufacture and production entered at the ports of Boston and New-York, are published for the information of officers of the customs and others concerned.

S. P. CHASE, *Secretary of the Treasury.*

ROUND CAST STEEL, IN COILS.

Treasury Department, November 22, 1861.

Sir,—I have had under consideration an appeal from your decision subjecting to duty, at the rate of $1\frac{1}{2}$ cent per pound, under the provision for steel in the 6th clause of section 7 of the tariff act of March 2, 1861, certain articles styled by the importers, Messrs. NAYLOR & Co., "round cast steel, in coils." The provision for steel in that clause is as follows, viz.: "On all steel in ingots, bars, sheets, or wire, not less than one-fourth of one inch in diameter, valued at seven cents per pound or less, one and a half cent per pound; valued at about seven cents per pound and not above eleven cents per pound, two cents per pound. Steel in any other form, not otherwise provided for, shall pay a duty of 20 per centum *ad valorem.*"

You levied the duty at the rate of $1\frac{1}{2}$ cent per pound on said articles as "wire" "a quarter of an inch in diameter, valued at seven cents or less per pound," and the appellants claim entry at the rate of 20 per cent.,

under the provision for "steel in any other form not otherwise provided for."

The question presented, then, is one of fact—whether the article in controversy is "wire" within the meaning of the law, or whether it is "steel in any other form?" In the opinion of the experts connected with the customs, to whom it has been submitted, it is not strictly wire, it having been hammered and rolled to bring it into its present shape, instead of "drawn," the process necessary to make it wire. It having been decided by one of my predecessors that it is not "bar" steel, that point is considered as settled. Then, being neither "wire" nor "bar" within the meaning of the law, it falls, in my opinion, under the provision for "steel in any other form not otherwise provided for," and, as such, liable to duty at the rate of twenty per cent.

I am, very respectfully,

S. P. CHASE, *Secretary of the Treasury.*

J. Z. GOODRICH, Esq., *Collector, &c., Boston.*

SILK LACETS.

Treasury Department, November 29, 1861.

Sir,—I have had under consideration your report on the appeal of Messrs. VARET & Co., from your assessment of duty at the rate of 40 per centum *ad valorem*, under the act of 5th August, 1861, on "silk lacets" imported by them.

The appellants claim entry of said articles at the rate of 30 per centum, under the provision in the 22d section of the act of March 2, 1861, for "articles worn by men, women and children, of whatever material composed, made up or made wholly or in part by the hand, not otherwise provided for."

The article in question, it appears, is a manufacture of silk and metal, silk being the material of chief value; and, further, that it is "not made up or made wholly or in part by hand," but made wholly by machinery. Being made by machinery and not by hand, it cannot be referred to the provision for "articles worn by men, women," &c., but it falls, in my opinion, under the provision for "all manufactures of silk, or of which silk shall be the component material of chief value, not otherwise provided for."

Your decision, therefore, is hereby affirmed.

I am, very respectfully,

S. P. CHASE, *Secretary of the Treasury.*

HIRAM BARNEY, Esq., *Collector, &c., New-York.*

VELVETS IN THE PIECE, INTENDED FOR THE MANUFACTURE OF BUTTONS.

Treasury Department, December 2, 1861.

Sir,—I have had under consideration your report on the appeal of Messrs. A. ISELIN & Co., from your decision subjecting to duty at the rate of 30 per cent., under the tariff act of August 5, 1861, certain "velvets," in the piece, imported by them.

The appellants allege that the fabric imported by them in this case is intended for the manufacture of buttons, and, on that ground, they claim exemption from duty under the provisions in the 23d section of the tariff act of March 2, 1861, which admit, free of duty, "lastings, mohair cloth, silk, twist, or other manufactures of cloth, cut in strips or patterns of the size and shape for shoes, slippers, boots, bootees, gaiters and buttons, exclusively, not combined with India rubber."

It appears, however, as a matter of fact, from the statement made by official experts, that the velvet in this case is not imported "cut in strips or patterns of the size and shape for shoes, slippers, boots, bootees, gaiters and buttons, *exclusively*," but is in a form and of dimensions that will admit of its application to the manufacture of many other articles.

It cannot, therefore, claim the exemption extended by the 23d section of the tariff to cloth "exclusively" applicable to the manufacture of buttons and the other enumerated articles, but must be held subject to duty at the rate of 30 per cent., under the provision in the 2d section of the tariff act of 5th August, 1861, viz.: "On all silk velvets, or velvets of which silk is the component material of chief value, valued at three dollars per square yard, or under, thirty per cent. *ad valorem*."

Your decision is affirmed.

I am, very respectfully,

S. P. CHASE, *Secretary of the Treasury*.

HIRAM BARNEY, Esq., *Collector, &c., New-York*.

DEER SKINS.

Treasury Department, December 3, 1861.

Sir,—I acknowledge the receipt of your report in the case of the appeal of Mr. E. L. CORNING, from your decision assessing a duty of ten per centum *ad valorem* on a lot of "deer skins," imported into your port from Para in the brig EMMA.

The 2d clause of the 10th section of the act of 2d March, 1861, imposes a duty of five per centum *ad valorem* "on raw hides and skins of all kinds, whether dried, salted or pickled, not otherwise provided for." The amendatory act of the 5th August, 1861, makes a new provision for "hides," imposing upon them a duty of ten per centum *ad valorem*, leaving the provision above cited in the act of 2d March, 1861, in other respects unchanged.

The importation in question was made since the act of 5th August, 1861, went into effect. As the law now stands, "skins" are subjected to a duty of five per centum *ad valorem*, and "hides" to a duty of ten per centum *ad valorem*; and the question presented in this case is, whether the article is a "hide" or a "skin."

To ascertain the meaning of these terms as used in the law, reference must be had to the distinction between them recognised in the language and usage of trade. The term "hides," it is well understood in trade, refers to the "skins" of the larger animals, used generally in the manufacture of sole, belt and other leather of that character, and "skins" to

the finer pelts of the smaller animals, such as the deer and goat, used in the manufacture of buckskin, morocco, &c.

Assuming this distinction to be correct, I am of the opinion that the article in question is to be regarded as a "skin," within the meaning of the law, and liable, under the tariff act of the 2d March, 1861, to a duty of five per centum *ad valorem*.

I am, very respectfully,

S. P. CHASE, *Secretary of the Treasury*.

HIRAM BARNEY, Esq., *Collector, &c., New-York.*

SADDLERY.

Treasury Department, December 16, 1861.

Sir,—I have carefully considered the several reports and papers submitted to me with the appeal of Messrs. GRAUPNER & LORING, from your assessment of duty on certain "polished curb chains," at the rate of 30 per cent., under the provision in section 22 of the tariff act of the 2d March, 1861, for "coach and harness furniture of all kinds, saddlery, coach and harness hardware, silver-plated, brass, brass-plated or covered, common tinned, burnished or japanned, not otherwise provided for."

The importers, it appears, claim to enter the merchandise at a duty of 25 per cent., under the provision made in the 4th clause of the 7th section of that tariff, for "chains under No. 9, wire gauge."

The article in question, it appears, is a short chain, finished and ready for attachment to a bridle-bit, and is fit for no other use. It has been usual, in the construction of tariffs, where provision has been made for "saddlery" by name, to regard articles of this description as embraced within the meaning of that term, and I perceive no just reason for departing from that usage in this case. The provision referred to by the importers in regard to "chains," must be held to have no reference to an article fitted exclusively for a particular purpose, and belonging, in commercial language and usage, to a classification for which a specific provision is made in the law.

Your decision is affirmed.

I am, very respectfully,

S. P. CHASE, *Secretary of the Treasury*.

J. Z. GOODRICH, Esq., *Collector, &c., Boston, Mass.*

THE MEXICAN CONVENTION BETWEEN ENGLAND, FRANCE AND SPAIN.

The following is the full text of the Mexican convention between England, France and Spain, of which brief summaries have already been given. After the usual preliminaries, the convention reads as follows:

ARTICLE 1. Her Majesty, the Queen of the United Kingdom of Great Britain and Ireland, her Majesty, the Queen of Spain, and his Majesty, the Emperor of the French, engage to make, immediately after the signature of the present convention, the necessary arrangements for despatching to the coast of Mexico combined naval and military forces, the strength of which shall be determined by a further interchange of com-

munications between their governments, but of which the total shall be sufficient to seize and occupy the several fortresses and military positions on the Mexican coast.

The commanders of the allied forces shall be, moreover, authorized to execute the other operations which may be considered, on the spot, most suitable to effect the object specified in the preamble of the present convention, and specifically to insure the security of foreign residents.

All the measures contemplated in this article shall be taken in the name and on account of the high contracting parties, without reference to the particular nationality of the forces employed to execute them.

ART. 2. The high contracting parties engage *not to seek for themselves*, in the employment of the coercive measures contemplated by the present convention, *any acquisition of territory*, nor any special advantage, and not to exercise, in the internal affairs of Mexico, any influence of a nature to prejudice the right of the Mexican nation to choose and to constitute freely the form of its government.

ART. 3. A commission, composed of three commissioners, one to be named by each of the contracting powers, shall be established, with full authority to determine all questions that may arise as to the application or distribution of the sums of money which may be recovered from Mexico, having regard to the respective rights of the three contracting parties.

ART. 4. The high contracting parties desiring, moreover, that the measures which they intend to adopt should not bear an exclusive character, and being aware that the government of the United States, on its part, has, like them, claims to enforce upon the Mexican republic, agree, that immediately after the signature of the present convention, a copy thereof shall be communicated to the government of the United States; that that government shall be invited to accede to it; and that, in anticipation of that accession, their respective ministers at Washington shall be at once furnished with full powers for the purpose of concluding and signing, collectively or separately, with the plenipotentiary designated by the President of the United States, a convention identical, save the suppression of the present article, with that which they sign this day. But, as by delaying to put into execution Articles 1 and 2 of the present convention, the high contracting parties would incur a risk of failing in the object which they desire to attain, they have agreed not to defer, with the view of obtaining the accession of the government of the United States, the commencement of the above-mentioned operation beyond the time at which their combined forces can be assembled in the neighborhood of Vera Cruz.

ART. 5. The present convention shall be ratified, and the ratifications thereof shall be exchanged at London, within fifteen days.

In witness whereof, the respective plenipotentiaries have signed it, and have affixed thereto the seal of their arms.

Done at London, in triplicate, the 31st day of the month of October, in the year of our Lord 1861.

[L. s.]	RUSSELL.
[L. s.]	XAVIER DE ISTURIZ.
[L. s.]	FLAHAULT.

CONFISCATED PROPERTY.

General Regulations Relative to Securing and Disposing of the Property found or brought within the Territory now or hereafter occupied by the United States Forces in the Disloyal States.

Treasury Department, November 30th, 1861.

In order to the security and proper disposition of the productions of the soil, and of all other property found within the limits of States, or parts of States, declared to be in insurrection against the United States, and now occupied, or hereafter to be occupied by the troops and authorities of the Union; the following regulations are established :

There shall be appointed, by the Secretary of the Treasury, with the approbation of the President, agents to reside at such ports or places as are or may be occupied by the forces of the United States, whose duties shall be to secure and prepare for market the cotton and such other products and property as may be found or brought within the lines of the army or under the control of the Federal authorities.

To enable such agents to fulfill the duties devolved upon them, the military and naval authorities, under proper instructions, will render such military protection and aid as may be required to carry out the intention of this department.

Persons held to service for life under State laws, who may be found within such limits, may be employed by the agent, who will prepare lists embracing the names, sex and condition of such persons, and, as near as may be, their respective ages, together with the name of any person claiming their services; which lists shall be in triplicate, one for the military commandant, one for the files of the agent, and one to be immediately forwarded to the Secretary of the Treasury.

The persons so listed will be organized for systematic labor in securing and preparing for market the cotton, rice and other products found within the territory brought under Federal control. Pay rolls will be prepared, and a strict account of the labor daily performed by each person entered thereon, for which a proper compensation shall be allowed and paid to the laborers. The amount of such compensation will be fixed, in proportion to the service rendered by the agent, and approved by the military commandant and by the Secretary of the Treasury.

An inventory of all horses, mules and other stock, vehicles of transportation and other property, will be carefully made, and a copy transmitted to the Secretary of the Treasury, signed by such agent.

A record of all products taken possession of will be made, and those of each plantation kept distinct. When prepared for shipment, the packages from the several plantations will be plainly marked and numbered, so as to be easily distinguished.

An account of all provisions, of whatsoever character, found on each plantation, will be taken, and such provisions will be used, so far as may be necessary, for the sustenance of the laborers thereon. Any deficiencies of subsistence will be supplied by the United States commissary, upon the requisition of the agent, to whom they will be charged, and for which he will account.

The cotton and other articles, when prepared for market, shall be shipped to New-York, and, so far as practicable, by the returning government transports; and all shipments shall be consigned to the designated

agent at New-York, unless otherwise specially directed by the Secretary of the Treasury.

A carefully detailed account will be kept by the agent of all supplies furnished by the government, and of all expenditures made.

Each agent will transmit a weekly report of his proceedings to the Secretary of the Treasury, and render his accounts in duplicate monthly for settlement.

All requisitions, bills of lading and invoices, will be countersigned by the military commander, or by such officer as he may designate for the purpose.

Each agent will so transact his business and keep his accounts, that as little injury as possible may accrue to private citizens who now maintain, or may within reasonable time resume, the character of loyal citizens of the United States.

S. P. CHASE,

Secretary of the Treasury.

TREATY WITH TURKEY.

A treaty of commerce has been concluded between Turkey, and England and France, which will have great effect in promoting the agriculture and commerce of Turkey, and her trade with the two western powers. The new treaty, which will come into effect on the 1st of March, 1862, at once reduces the duty on all exports to eight per cent., which is to be further reduced one per cent. every year, till it finally ceases. To make up what loss this may occasion to the revenue, the duty on imports, which was formerly five per cent., is to be raised to eight. There are vast tracts of land, in many instances near the coast, which will now probably be brought into cultivation. Under the old Turkish system, the government reserved to itself the monopoly of the purchase of corn, which it sought to obtain, at an arbitrarily low price, for the consumption of Constantinople and the great cities. Land-owners, consequently, only sowed sufficient for their own wants, and any surplus they had went to the government, at its own price. Under the treaty concluded by Lord PONSOMBY with the Porte, this monopoly was abolished; but the Turks, still anxious to keep their grain at home, insisted on an export duty of twelve per cent., which only had the effect of impeding the industry of some of the finest grain-producing land in the world.—*Morning Post.*

THE AMERICAN QUESTION.

At the Chamber of Commerce of Edinburgh, on December 13th, a motion was made by the members to memorialize the government to do the utmost in their power to act on the resolution proposed by the British government to the Paris conference of 1856, to have recourse to arbitration before appealing to arms. Several members having opposed the motion, on the ground that it might perhaps be construed into an expression of want of confidence in government, the mover, though disclaiming that idea, consented to withdraw the motion.

GLASGOW CHAMBER OF COMMERCE.

The directors of this body, at their meeting in December, agreed to draw the attention of the Chambers of Commerce in the kingdom to the importance and desirableness of recommending the discontinuance of envelopes in business communications in their respective districts. They also agreed to memorialize government to use its influence with the government of the United States to allow of some arrangements being made for the transmission of letters from this country to the Southern States, the post-office authorities of America having intimated that all letters to the Southern States would be returned to the writers through the dead-letter office.

BREACHES OF CONTRACT IN INDIA.

In reply to a memorial on this subject, the Manchester Chamber of Commerce have received the following communication from the India House :

India Office, London, S. W., 18th Oct., 1861.

Sir,—I am directed by the Secretary of State for India in Council to acknowledge the receipt of a memorial from the directors of the Manchester Chamber of Commerce, forwarded by you to Sir CHARLES WOOD, with respect to the difficulty of enforcing the observance of legal contracts made with the agricultural population of India, with reference, more especially, to the cultivation of indigo; and to inform you, in reply, that although Her Majesty's government are not prepared to approve any act which shall treat breaches of contracts for the delivery of agricultural produce as criminal offences, the best attention of the government of India is devoted to the establishment of efficient civil tribunals, in which due and prompt remedy shall be afforded in all cases of contract willfully and unjustifiably broken.

I am, sir, your obedient servant,

COSMO J. MELVILL.

MALCOLM ROSS, Esq., *Manchester Chamber of Commerce.*

COMMERCE OF FRANCE.

A commission has been established at the Ministry of Commerce, Paris, composed of eminent lawyers, members of the Council of State, and retired consuls, for the purpose of preparing a revision of the criminal code. Several of the articles of that code are no longer applicable, in consequence of the great changes which have taken place in the mode of transacting business in France. It is said that the law of 1856 on joint-stock companies is to be the subject of a very minute examination. It is not expected, however, that the proposed changes can be accomplished without bringing the subject before the Corps Legislatif. The French Minister of Commerce has required information from the authorities in several of the commercial towns of France, with respect to the various usages existing as to the sale of merchandise, the mode of payment, and the amount of discount allowed.

JOURNAL OF NAUTICAL INTELLIGENCE.

I. NEW LIGHT-HOUSES.—1. BASS STRAIT.—2. GULF OF ST. LAWRENCE.—3. EAST COAST OF ENGLAND. II. NEW REEFS. III. NEW WHALING GROUND. IV. NEW FOG BELL. V. LIVERPOOL DOCKS. VI. REBEL PIRATES. VII. STEAMERS IN CHILL. VIII. ARMING MERCHANT SHIPS.

NEW LIGHT-HOUSES.

Australia.—Bass Strait.—Fixed Light on Cape Wickham.—On and after the 1st day of November, 1861, a light will be exhibited from the light-house recently erected on the hill near Cape Wickham, at the north end of King Island, in Bass Strait, south coast of Australia. The light will be a fixed white light, and will be visible from the deck of a vessel when bearing from N. N. E. $\frac{1}{2}$ E. round by the east, to W. N. W. It is placed at an elevation of 280 feet above the mean level of the sea, and should be seen in clear weather from a distance of twenty-four miles. The illuminating apparatus is catadioptric, or by lenses of the first order. The light-house is a circular stone tower, 145 feet high, and painted white. From it the west extreme of Harbinger Reef bears W. by N. $\frac{3}{4}$ N., distant four and one-half miles, and the east extreme N. W. by W., four miles; Navarino Shoal N. E. by N., two and one-half miles; and south extreme of New Year Islands S. W. $\frac{1}{2}$ S., nine miles, and north extreme S. W. $\frac{1}{2}$ W., seven and one-half miles. The position of the light-house is about lat. $39^{\circ} 35'$ S., and long. $143^{\circ} 57'$ east of Greenwich.

Caution.—The attention of mariners is called to the following extract from the report of the light-house commissioners appointed by the governments of New South Wales, Victoria, South Australia and Tasmania: "In advising the erection of a light-house on King Island, the commissioners wish to guard themselves from affording the public any reasonable supposition that this light can be at all considered in the position of a great highway light for the navigation of Bass Strait. The south coast of New-Holland, at the western entrance of the strait, being free from danger, affords, in their opinion, the safest shore for the prudent mariner to approach, and they conceive that the light on King Island is only to be regarded as a beacon for warning navigators of danger, rather than as a leading light to a great thoroughfare." The bearings are magnetic. Variation $8^{\circ} 20'$ east in 1861.

Gulf of St. Lawrence.—Revolving Light on Cape George.—After the 25th day of October, 1861, a light will be exhibited from a light-house recently erected on Cape George, near the northeastern extremity of Nova Scotia, at the entrance of Northumberland Strait, Gulf of St. Lawrence. The light will be a revolving white light, attaining its greatest brilliancy every half-minute. The elevation of the light is about 400 feet above the mean level of the sea, and should be seen in clear weather from a distance of twenty-five miles. The light is only shown during the navigable season. The illuminating apparatus is dioptric, or by lenses of the second order. The tower, which is thirty-nine feet high from base to vane, is square, painted white, surmounted by a lantern, and

stands on the north side of the cape, in lat. $45^{\circ} 52' 50''$ N., long. $61^{\circ} 55'$ west of Greenwich.

Pubnico Light.—On the 1st day of October, 1861, the light at Pubnico, on the southwest coast of Nova Scotia, was changed from red to white.

Fixed Light on Cape Sable.—Also, that on or about the 12th day of October, 1861, a fixed red light would be exhibited from a light-house recently erected on Cape Sable, near the southwestern extreme of Nova Scotia; of which no further details are known.

England.—East Coast.—Revolving Light near Outer Dowsing Shoal.—Official information has been received, that a light-vessel has been placed on the west side of Outer Dowsing Shoal, off the coast of Lincolnshire, in the North Sea. The light is a quick revolving light, showing a red face every twenty seconds. It is elevated thirty-eight feet above the level of the sea, and should be seen in clear weather from a distance of about ten miles. The light-vessel lies in nine fathoms at low water springs, with Spurnhigh light-house bearing N. W. by W. thirty-three and a half miles; Dudgeon light-vessel S. W. $\frac{1}{2}$ S., southerly thirteen and a quarter miles; Cromer light-house S. $\frac{1}{2}$ W. thirty-four miles; north extreme of the shoal N. $\frac{1}{2}$ W. five and a half miles; and the nearest shoal spot E. by N. one mile. The lat. is $53^{\circ} 28\frac{1}{4}'$ N., long. $1^{\circ} 2' 40''$ east of Greenwich. A can (watch) buoy, marked Outer Dowsing, lies three-quarters of a mile E. S. E. from the light-vessel.

Girdler Light Vessel.—Also, that on or about the 1st day of November, 1861, the Girdler light-vessel, at the entrance of the Thames, would be moved about two cables length W. N. W. from her present position, into twenty feet at low water. All bearings are magnetic. Variation $21^{\circ} 30'$ west in 1861.

NEW REEFS.

South Pacific Ocean.—Pelorus Reef.—Official information has been received at this office, that H. B. M. S. PELORUS, when navigating between New Zealand and the Fiji Islands, on the 12th July, 1861, passed within a third of a mile of a reef, which appeared to be about a quarter of a mile in length, and to have not more than one or two fathoms water on its western end, at the extremity of which breakers were visible. Its position is in lat. $22^{\circ} 52\frac{1}{4}'$ S., long. $176^{\circ} 27' 50''$ west of Greenwich, Pylstaart Island was in sight, and bore N. by E., distant thirty-seven miles.

Also, that after dark on the evening of the same day, when steering N. W., under reduced sail, soundings were obtained with the hand lead in seven fathoms, followed by two casts in six and a half and seven fathoms respectively. The vessel was immediately brought to the wind and tacked, and the deep sea lead hove, but no soundings were obtained within sixty-three fathoms. This bank, if it exists, is in lat. $21^{\circ} 43'$ S., long. $176^{\circ} 42'$ W.

Caution.—As these shoals lie directly in the track of vessels bound from New-Zealand to the windward islands of the Fiji group, the mariner is cautioned to pay great attention to the lead, and to keep a good look-out for discolored water when in this neighborhood.

The natives of the Friendly Islands, who maintain much intercourse with the Fiji group by means of their large canoes, state that they are aware of the existence of many shoals between Tongatabu and the Ono Islands to the south of the Fiji group, but are unable to define their position. The only bank of which there is any reliable information, is one of some extent, having twenty-two fathoms water on it. It was discovered in August, 1860, by three American whalers in company, and the mean of their observations place it in lat. $22^{\circ} 43' S.$, long. $176^{\circ} 11' W.$ The bearings are magnetic. Variation $10^{\circ} 20' E.$ in 1861.

NEW WHALING GROUND AND PLENTY OF WHALES.

Ships *NORTHERN LIGHT* and *SIREN QUEEN*, both of which arrived at this port this forenoon, from Sir THOMAS ROWE'S Welcome, Hudson Bay, lat. $65^{\circ} N.$, lon. $90^{\circ} W.$, report having found plenty of whales, but owing to the sickness of the crews with scurvy, the shortness of the season, and losing part of their oil by the ice, were not as successful as could have been desired. The ground visited by these ships is 1,500 miles west of Cumberland Inlet, the rendezvous of *ANTELOPE*, *BLACK EAGLE* and other ships, and has never been visited by whalers before, either American or foreign. No ships have been there since the expedition of *PARRY* and *LYON* in 1822. It was owing to the published statements of these explorers that these ships were fitted out and sent to that region, *PARRY* having stated that whales were to be seen every day in the open season, which is fully confirmed by Captains *CHAPEL*, who state that if their crews had been well they would have brought home full ships. The weather during the open season was very good, but the crews of the ships, particularly the *SIREN QUEEN*, suffered severely with the scurvy. The information gained by these voyages is of importance to the whaling interest, and will, no doubt, revive the energies of our merchants, who were disheartened at the unfavorable news brought by the *ANTELOPE* in regard to the whaling business of Cumberland Inlet.

The captains of the *NORTHERN LIGHT*, *SIREN QUEEN* and the *ANSEL GIBBS*, the latter in Cumberland Inlet, are brothers, belonging in New-London, Conn., and have visited Davis Straits on previous voyages. Captain *ICHABOD HANDY*, an old and experienced whaleman, late master of the barque *BELLE*, was also on board the *NORTHERN LIGHT*, after whom they named their winter quarters, Handy Harbor.—*New-Bedford Standard*, Oct. 11.

A NEW STYLE OF FOG-BELL.

We notice in the *Portland Advertiser* an account of a fog-bell now at the machine-shop of Mr. *IRA WINN* in that city, which, it says, appears to be free from the objections which are brought against those now in use. We quote the chief part of its description :

“The machine is simple in its construction, as all really good machines are ; it works itself, and will continue to do its duty for an indefinite period, if its shafts and wheels are only kept properly oiled. The hammers are attached by rods with spiral springs to clock-work, which is kept constantly wound up by the never-ceasing motion of the sea itself.

A piece of timber, from the base of the machine, reaches out of the water, and over this beam a chain extends, holding at its extremity a large float, which rests upon the surface; this chain passes around a cylinder within the house, having at its other extremity a weight, which retains the slack caused by the rise of the float upon the water, and at the same time winds up the machine. It is estimated that a rise of the waves of four inches in the minute will suffice to keep the machine in motion. The hammers, which may vary in weight, are designed to strike on a steel bell of high tone, about once in ten or fifteen seconds, giving out a clear, sharp ring, which will not accord with the noise of the surf, and may be heard above the roar of a storm or the rush and thunder of the breakers for many miles. It would require too much space to give a detailed description of the machine; its chief merit lies in the fact that its action will continue as long as there is motion in the water, and that its simple construction renders it almost wholly self-governing; the only care it requires, as we have before observed, is attention to the shafts and cogs to prevent their chafing for the want of oil. It is not to be supposed that the ringing of the bell is necessarily without intermission; the hammers may be disconnected at will, and the machine continue running without sound, or the machine itself may be wholly stopped and again set in motion within a single minute."

CUNARD STEAMERS.

Besides the SCOTIA, which was launched under such favorable auspices, Messrs. ROBERT NAPIER & SON are making rapid progress with another first-class steamship, to be employed by the same company in their North American trade, to be called the CHINA. She is to be a screw-propeller of great power. The following details, connected with the different ships belonging to this company, cannot fail to be interesting, and we therefore give the subjoined table of the principal dimensions of paddle steam vessels built for the British and North American Royal Mail Steam Packet Company (machinery of the whole, and hulls of PERSIA and SCOTIA, by ROBERT NAPIER & SON, Glasgow.)

	<i>Asia, Africa.</i>	<i>La Plata, Arabia.</i>	<i>Persia.</i>	<i>Scotia.</i>
Date of construction,.....	1850	1852	1855	1861
Material of hull,.....	Wood	Wood	Iron	Iron
Length of keel and forerake,.....feet,	266.5	285.0	360.0	366
Breadth of beam, extreme,..... "	40.0	40.7	45.0	47.7
Depth, over planking,..... "	30.2	30.8	32.2	33.5
Tonnage,.....tons,	2,129	2,293	3,587	4,050
Mean draft,.....feet,	18.8	19.0	20.0	20.0
Corresponding displacement,.....tons,	3,620	3,950	4,860	5,620
" neid area,.....sq. feet,	657	686	750	820
Diameter of cylinders,.....inches,	96.4	103.0	100.5	100.0
Length of stroke,.....feet,	9.0	9.0	10.0	12.0
Area of fire grate,.....sq. feet,	417	642.0	715	758.0
Heating surface in boilers,..... "	7,032	16,948	22,307	23,826
Nominal power,.....horses,	768	873	850	883

LIVERPOOL DOCKS.

The report of the Select Committee appointed to inquire into the extension of Chatham Dockyard, a few months ago, went very fully into

the subject, and recommended the construction of new basins and graving docks there, at a cost of £900,000, which recommendation was approved by Parliament.

On the Liverpool side of the Mersey there is an area of dock-water space of 235 acres. The entrances to these docks vary from 30 feet to 100 feet in width, and the average depth of water at mean neap tides varies from 16 feet 3 inches to 19 feet, and at spring tides from 23 feet 3 inches to 26 feet. The area of water space of the Birkenhead Docks, now completed, or to be completed within three years, is 153 acres. Of this water space, the great float of 120 acres is now complete. The width of the entrances varies from 50 feet to 100 feet, and the depth of water on the sills at mean neap tides is 23 feet 3 inches, and at mean spring tides 30 feet 3 inches. The lock entrances into two of the Liverpool docks have been so constructed that they can be used as graving docks in case of necessity. The Canada Dock lock is 500 feet long, 100 feet wide, and has a depth of water at the sill at mean spring tides of 26 feet. The Huskisson Dock lock is 396 feet long, 80 feet wide, and has a depth of water on the sill, at mean spring tides, of 24 feet 9 inches. On the Birkenhead side there is one lock entrance 500 feet long, 85 feet wide, and a depth of water of 30 feet 3 inches at mean spring tides. This lock can also be used as a graving dock. There are 16 graving docks in Liverpool, varying in length from 300 feet to 700 feet, having a depth of water of 18 feet to 21 feet on the blocks at mean spring tides; the width of the entrances varying from 40 feet to 70 feet.

At Birkenhead three public graving docks are in course of construction, each 750 feet long; two having 50 feet entrances, and the third an entrance of 85 feet wide. The depth of water in these graving docks is 25 feet 9 inches at mean spring tides. There is another lock entrance into the Birkenhead Docks which is now 400 feet long by 100 feet wide, having a depth of water, at mean spring tides, of 30 feet 3 inches, which could also be lengthened to 500 feet, and adapted for use as a graving dock at a cost of about £15,000.

In addition to the public docks on both sides of the river above alluded to, there are ten private graving docks on the Birkenhead side; two of these are 440 feet long, and have a depth of water, at mean spring tides, of 20 feet 3 inches, and one of these is now being enlarged, and the depth of water increased to 24 feet. Two others of these docks are 380 feet long each, with a depth of water, at mean spring tides, of 19 feet 3 inches. The width of entrances to these four docks varies from 80 feet to 87 feet. The mean of spring tides is called 18 feet 3 inches on the old dock-sill *datum*; but the tides rise occasionally to 21 feet, which would make a depth of water on the sill of the Birkenhead Docks, at the highest tides, of 33 feet 3 inches. From the above statement it would appear that there is a large area of dock-water space now ready, or shortly to be completed, which, in case of war or any sudden emergency, would afford accommodation to some of the largest ships in her Majesty's service; and there is no doubt, from the nature of the locality, that graving-dock accommodation suitable for the largest ships of war now being constructed could be provided at a very moderate cost.

REBEL PIRATES.

The despatch of Secretary SEWARD to minister ADAMS, dated November 11th, states :

“The case in regard to pirates, engaged by insurgents in this country, practically stands : Every naval power and every commercial power, except one, practically excludes them from their ports, except in distress, or for a visit of any kind longer than twenty-four hours, and from supplies, except of coals, except for twenty-four hours’ consumption. Great Britain, as we are given to understand by the answer of Earl RUSSELL, allows those pirates to visit her ports and stay at their own pleasure, receiving supplies without restriction. We find it difficult to believe that the government of Great Britain has constituted this exception with full deliberation. I intimated in a preceding dispatch the hope that the subject might be reconsidered before it should be necessary for us to consider what remedies we can adopt to prevent the evils which must result to our commerce from the policy thus indicated by Great Britain. I have consulted on the subject with Lord LYONS, and he may, perhaps, communicate with his government thereupon. Meantime I am directed by the President to instruct you to call the attention of her Majesty’s government to the question under the influences of a spirit of peace and friendship, and with a desire to preserve what remains of a commerce mutually important to both countries.”

STEAMERS IN CHILI.

The government is contemplating the establishment of a line of steamers between the Atlantic and Pacific, by the Straits of Magellan. The agent of the British Pacific Steam Navigation Company offers to start the line if he shall receive a subvention from the South American States. If done, *this would connect the Chilian trade more closely with England, by way of Brazil*, thence to Southampton by the direct line, operating injuriously, to a certain degree, against the American Panama line. While the United States and her commercial men, apparently regardless of their own interests, have no steam communication with Brazil, English merchants are seeking new channels of commerce with Brazil and the South American States. The British mail steamers, between Valparaiso and Ancud, get this year from the Chilian government \$40,000, instead of the \$50,000 of last year.

THE ARMING OF MERCHANT SHIPS.

Her Majesty’s government have determined, it appears, to arm the steamers of the Peninsular and Oriental Company and other mail contract packets, so as to render them fully capable of defence against the attacks of privateers, in the event of a war with America. The Peninsular and Oriental Company have sent, in consequence, a requisition for a considerable amount of ordnance stores. This company possesses about fifty vessels, and most of them can carry an armament of six heavy guns, including two 40 pounder ARMSTRONGS, with rifles, revolvers, cutlasses and boarding-pikes for crews of about 150 men and officers for each ship.

With armaments and crews to this extent, not taking into account the number of naval and military passengers usually carried, and who will doubtless be willing to give their assistance, these vessels would not only take good care of themselves, but, if opportunity offered, would be ready to act upon the offensive. The same company are having their officers and men drilled both in gunnery and rifle practice.—*Daily News.*

DR. HAYES' LATE VOYAGE.

Since Dr. HAYES arrived at home he has been invited by the American Geographical and Statistical Society, New-York, by the Academy of Natural Sciences, the American Philosophical Society and the Board of Trade, of Philadelphia, to give before them a summary of the results of his expedition. These results have been stated as follows:

1. A detailed survey of the west coast of north Baffin's Bay, Smith's Straits and Kennedy Channel, and the extension of the survey to the north of any previous exploration. This survey embraces about 1,300 miles of shore line.

2. The discovery of a new channel or sound, opening westward from Smith's Strait, parallel with Jones and Lancaster Sounds.

3. A detailed survey of the coasts of Whale Sound and the coasts to the north and south of it. This survey embraces about 600 miles of shore line.

4. Surveys of glaciers, by which their rate of movement is estimated.

5. Complete set of pendulum experiments.

6. Sets of magnetic experiments at Port Foulke, Cape Isabella, in Whale Sound, at Upernavik and Godhavn.

7. Topographic and hydrographic surveys, including tidal observations.

8. Large collections of specimens of natural history and geological and mineralogical collections.

9. A continuous set of meteorological observations.

10. An extensive collection of photographic views.

11. The accomplishment of a more northern latitude than ever before attained upon land.

12. Fresh confirmation of theories respecting the open Polar Sea.

LAKE TRADE OF 1861.

The number of side-wheel steamers which were in service during the season of 1861, at different points on the lakes, was sixty-seven, of which number eight were engaged in the Lake Superior trade. The whole number of propellers in service was two hundred and nineteen, of which nine were also engaged in the Lake Superior trade, more or less. The number of barks in service was ninety-four. Engaged in the Lake Superior trade, more or less, were eight barks. The total number of brigs, seventy-five, and schooners, eight hundred and ninety-two. There were also more or less engaged in the Lake Superior trade, one brig and forty-three schooners. The number of tugs in service at different points, is one hundred and eight. Forty-one of this number were engaged exclusively on the Detroit and St. Clair Rivers, or between Lakes Erie and Huron.

JOURNAL OF INSURANCE AND BANKING.

I. FIRE INSURANCE REPORT. II. GOVERNMENT CURRENCY.

FIRE INSURANCE REPORT.

At a meeting of the New-York Board of Fire Insurance Companies, held December 23d, 1861, the committee appointed at a previous meeting submitted the following report and resolutions :

The committee appointed by the Board of Underwriters of the city of New-York, at their meeting on the 12th inst., to take into consideration the storage of petroleum, earth oils, benzine, benzole and naphtha in public warehouses and other buildings in compact portions of the city, are prepared to submit the following report :

Your committee find that the substance known by the name of petroleum, rock oil, or earth oil, as it is generally received in its crude and unrefined state, is largely charged with volatile matter, highly inflammable in its nature, and evolved to some extent at the usual temperature of the atmosphere, and much more freely by an increased degree of heat. This gas, when evolved in large quantities, and mingled with the air in closed buildings, becomes exceedingly inflammable, and, under certain contingencies, like coal gas, highly explosive. The oil itself, when in actual contact with fire, burns with a very dense smoke and intense heat, and is nearly or quite inextinguishable by water. Excited by a high degree of heat, it becomes more inflammable, penetrates surrounding objects, and imparts to them its own destructive qualities. The storage of these oils is not only dangerous on account of their liability to fire, and their destructive properties when on fire, but on account of their injurious effects on other merchandise stored in the same or even adjoining buildings, by reason of their offensive and penetrating odor. In a fire of any considerable magnitude, this explosive gas would be generated in immense quantities, and the destruction of property in a compact portion of the city would, in all probability, be incalculably great.

With these facts before us, your committee cannot do less than recommend that petroleum, rock oil or earth oil, in its crude or unrefined condition, be declared by your Board *positively uninsurable in all buildings in compact portions of the city, and in all public warehouses privileged for storage of hazardous and extra hazardous merchandise*, and that such oils are considered insurable *ONLY* when in *detached and properly-ventilated sheds and warehouses, specially adapted by their construction for that purpose, and devoted exclusively to the storage of such oils, or substances of a similar character, and then at a special rate not less than THREE PER CENT.*

Your committee also find that benzine, benzole and naphtha, liquids produced from the distillation of coal and the refining of crude petroleum, rock oil and earth oil, and extremely volatile in their properties, and nearly allied with, if not more dangerous than camphene, are being

largely introduced into various arts and manufactures, and are often stored in considerable quantities in stores and warehouses in this city and vicinity. These articles, when exposed, evaporate with great rapidity at a moderate temperature, and when combined with air become exceedingly explosive and dangerous, burning with great fury, and communicating fire to surrounding objects almost instantaneously. In the judgment of the committee, these articles, when kept in quantities of *three* barrels or less in any one building, should be placed in the list of "*special hazards*," and charged as such, and when kept in quantities *greater than three* barrels, should be subject to the same restrictions and rates as crude petroleum, rock oil and earth oil.

Your committee also recommend that manufactured coal oil, refined petroleum oil, kerosene and carbon oil, and all oils manufactured from coal, rock oil or earth oil, when kept in less quantities than ten barrels, be classed as "*extra hazardous*," and when kept in larger quantities than ten barrels, as "*specially hazardous*," and charged accordingly.

Your committee, therefore, recommend the adoption of the following resolutions:

Resolved, That petroleum, rock oil and earth oil, in a crude or unrefined state, be and hereby are declared uninsurable, except when stored in detached and properly-ventilated sheds and warehouses, specially adapted by their construction for that purpose, and devoted exclusively to the storage of such oils, or substances of a similar character, and then at a special rate of not less than *three per cent*.

Resolved, That benzine, benzole and naphtha, when kept in quantities of *three* barrels or less, be classed as "*specially hazardous*," and charged as such; and when kept in *larger quantities than three* barrels, be subject to the same restrictions and rates as crude petroleum, rock oil and earth oil.

Resolved, That manufactured coal oil, refined petroleum oil, kerosene and carbon oil, and all oils manufactured from coal, rock or earth oil and petroleum, when kept in *less* quantities than *ten* barrels, be classed as "*extra hazardous*," and when kept in *larger* quantities than *ten* barrels, be classed as "*specially hazardous*," and charged as such.

All of which is respectfully submitted.

D. A. HEALD, of <i>Home Ins. Co.</i> ,	} Committee.
GEORGE T. HOPE, of <i>Continental Ins. Co.</i> ,	
E. A. STANSBURY, of <i>Metropolitan Ins. Co.</i> ,	
HENRY A. OAKLEY, of <i>Howard Ins. Co.</i> ,	
J. L. DOUGLASS, of <i>Merchants' Ins. Co.</i> ,	

New-York, December 23, 1861.

After full discussion the report was accepted, and the resolutions were unanimously adopted.

On motion, it was further resolved, that the building containing the articles above enumerated, and all other merchandise therein, be charged at the rates named above.

RICHARD J. THORNE, *President*.
WILLIAM F. UNDERHILL, *Secretary*.

New-York, December 23, 1861.

GOVERNMENT CURRENCY.

The following has been printed in circular form, written by an experienced bank officer, who is connected with one of the largest and most successful of the associated banks :

SKETCH OF A PLAN FOR A GOVERNMENT LOAN.

Congress to authorize Mr. CHASE to borrow at once, from the banks in New-York, Boston and Philadelphia, three hundred (300) million dollars, pledging as collateral security therefor five hundred (500) million 7 30-100 per cent. Treasury notes, (convertible into twenty years' 7 per cent. bonds at any time,) accompanied with an act of Congress pledging the entire property of the United States as security against any and all loss accruing to the banks through *this* and the *last two* loans or purchases of Treasury notes and bonds.

If deemed important, a *direct lien* on the lands belonging to the United States, in the shape of a mortgage or otherwise, could be asked for.

The Secretary of the Treasury should receive instructions, with discretionary powers as to time and price, to sell the whole or any part of said five hundred million dollars Treasury notes, (or the 7 per cent. bonds into which they could at any time be converted,) and apply the proceeds thereof to the payment of the loan of three hundred million dollars.

To enable the banks to make this loan, and insure the prompt payment of the entire amount, as called for by the government, continuing specie payments, it would be highly important that foreign exchanges be kept in favor of the United States; and as we can only hope for a continuance of the present reduced rate for exchange through continued diminished imports of goods, Congress should immediately impose heavy duties upon many articles in common use, to continue during the war.

If, through a change in the rates for foreign exchange, with a prospect of a shipment of gold, it should become necessary to suspend specie payments, the drafts of the government can easily be met by the banks with their common currency, (including, perhaps, fifty million dollars demand Treasury notes for the use of the troops, which could be redeemed by the banks as their own circulation,) provided it were included in the proposed arrangement for security.

The direct advantages to the banks in making this loan are—

1. Security from loss on the amount of the two last loans or purchases of one hundred million dollars Treasury notes and bonds.
2. Accruing interest on loan of three hundred million dollars to be placed to the credit of government at once, but which will not be wanted for some months.

The indirect benefit would accrue through the good effects of such a measure upon the whole business community—the probability of a continuance of specie payments, and saving the present currency from interference at this inauspicious time.

Through the confidence of the people in the ability of the government to conduct the war to a successful issue with the means thus placed at its disposal in this negotiation, the Secretary of the Treasury would be able to sell the Treasury notes or bonds before the 1st of July next, at a price not below that at which the fifty million 6 per cent. bonds were awarded to the banks in November last.

SECURITY.

THE WAREHOUSING SYSTEM OF THE UNITED STATES.

THE Tariff Act of August, 1861, section 5, provides as follows:

SEC. 5. *And be it further enacted*, That all goods, wares and merchandise actually on shipboard and bound to the United States, and all goods, wares and merchandise on deposit in warehouses or public stores at the date of the passage of this act, shall be subject to pay such duties as provided by law before and at the time of the passage of this act: *And provided further*, That all goods deposited in public store or bonded warehouse after this act takes effect and goes into operation, if designed for consumption in the United States, must be withdrawn therefrom, or the duties thereon paid in three months after the same are deposited; and goods designed for exportation and consumption in foreign countries may be withdrawn by the owner at any time before the expiration of three years after the same are deposited; such goods, if not withdrawn in three years, to be regarded as abandoned to the government, and sold under such regulations as the Secretary of the Treasury may prescribe, and the proceeds paid into the Treasury: *Provided*, That merchandise, upon which the owner may have neglected to pay duties within three months from the time of its deposit, may be withdrawn and entered for consumption at any time within two years of the time of its deposit, upon the payment of the legal duties, with an addition of 25 per centum thereto: *Provided, also*, That merchandise upon which duties have been paid, if exported to a foreign country within three years, shall be entitled to return duties, proper evidence of such merchandise having been landed abroad to be furnished to the collector by the importer, one per centum of said duties to be retained by the government.

SOME REASONS WHY GOODS OUGHT TO BE ALLOWED TO REMAIN IN BOND
FOR THREE OR FIVE YEARS.

What the Treasury wants is revenue. If it can be shown that the three months' bonding system will kill the goose that lays the golden egg, much will be done, no doubt, towards restoring the old regulation, allowing three years to take goods out of bond.

Under the three years' bonding system a business had grown up in the United States, unknown before, at least in its extent, which business helped, in a considerable degree, the sale and export of American manufactured goods and produce. Able to find, under that system, in our bonded warehouses, the manufactures and produce of England, France, Spain, Asia and other regions, merchants of this and of other countries made up assorted cargoes for the West Indies, South America, Africa, and even the East Indies, and, along with the foreign article, American merchandise would be taken. Under the short bonding system this business, which was fast making the United States the commercial mart of the world, is lost to the country, and the cities of New-York, Phila-

delphia and Boston will feel its effects, not only in the loss of what trade of the kind had been already established, but yet more in the loss of the expansion which that trade was taking, which was great, and, but for the unfortunate change, would have been lasting.

The writer has himself imported goods, and kept them in bond three years without selling them, at the expiration of which time he has had to ship them again to a foreign port, and re-import them, to get another three years' extension. This is mentioned only to show that the time of three years is not by any means too long, if long enough; for here there is a double freight and incidental expense lost, which a more liberal system would have saved.

The idea that *revenue* will come in *quicker* under the three months' system will probably be found a delusion. The only effect of this system will be to prevent importation, and it will most certainly, at times, cause a great rise in prices of any article not imported in sufficient quantity, and not found in market to supply a sudden demand. High prices stop consumption, and, therefore, the revenue must suffer. Under the three or five years' system goods will be warehoused, and duties paid on them whenever the consumption of the country will demand it; and, inasmuch as it will have a tendency to keep prices moderate, the revenue will be benefited by the duties on the increased consumption of a cheaper article. Much more might be said on the subject, but the foregoing is deemed sufficient to call for a return to the more beneficial and liberal provision of our former revenue laws. A perseverance in the present system will lose revenue to the customs, and cause a great loss to our trading community, our ships, our manufacturers and mechanics.

MERCATOR.

New-York, January 8, 1862.

THE ENGLISH WAREHOUSING SYSTEM.

Section 103, of the British warehousing act, provides: Goods warehoused, not cleared for home use or exportation *within five years*, must be re-warehoused; and duties on deficiencies and expense of examination, to be paid down. All warehoused goods shall be cleared, either for home use or exportation, at the expiration of five years from the date of warehousing; or within such further period, and in such cases, as the commissioners of the treasury shall direct, unless the owner or proprietor of such goods be desirous of re-warehousing them, in which case they shall be examined by the proper officers, and the duties due upon any deficiency or difference between the quantity ascertained on landing and the quantity then found to exist, subject to such allowances as are by law permitted in respect thereof, together with the necessary expense attendant thereon, shall be paid down; and the quantity so found shall be re-warehoused in the name of the then owner or proprietor thereof, in the same manner as on the first importation.

JOURNAL OF MINING AND MANUFACTURES.

I. SIR W. ARMSTRONG ON PLATED SHIPS. II. THE FUR TRADE. III. MANUFACTURE OF SHOES. IV. COCHINEAL IN INDIA. V. A POWERFUL GUN. VI. LAKE SUPERIOR COPPER REGION. VII. LUCIFER MATCHES. VIII. SIR E. MURCHISON. IX. SALE OF LAWRENCE MACHINE SHOP. X. RECENT ITALIAN INVENTIONS. XI. UPPER LEATHER FOR SHOES. XII. COTTON PRINTING IN FRANCE. XIII. NEW PATENTS.

SIR W. ARMSTRONG ON IRON-PLATED SHIPS, & C.

THE annual meeting of the Institution of Mechanical Engineers was opened at Sheffield, in November, Sir WILLIAM ARMSTRONG, the president, in the chair. There was a numerous attendance, and after the minutes of the previous meeting had been confirmed, the president delivered his annual address. Having spoken of the mechanical arts as applied to the purposes of peace, he alluded to the changes which the progress of science had necessitated in the machinery of war. "Our warlike neighbors, the French," he said, "always forward in every thing appertaining to war, have of late years devoted their energies to two most important subjects; the rifling of ordnance and the application of defensive armor to ships. Their advances have necessitated similar steps on our part, and we have certainly no reason to suppose that we are behind them in the race." Having described his own process of manufacturing ordnance, he observed: "With regard to the great question of the ultimate effect of artillery against ships protected by defensive armor, I believe that whatever thickness of iron may be adopted, guns will be constructed capable of destroying it. At the same time, I am of opinion, that iron-plated ships will be infinitely more secure against artillery than timber ships. The former will effectually resist every species of explosive or incendiary projectile, as well as solid shot from all but the heaviest guns, which can never be used in large numbers against them. In short, it appears to me to be a question between plated ships, or none at all, at any rate, so far as line-of-battle ships are concerned." Sir WILLIAM discussed at considerable length the question as to the most suitable plates for resisting shot; his opinion, upon the whole, being in favor of rolled rather than forged iron. Three papers were subsequently read by members of the institution, including one by Mr. HENRY BESSEMER, "On the manufacture of cast steel and its application to constructive purposes." After describing his process of making cast steel, Mr. BESSEMER said, one of the most special adaptations of such steel, was its suitability for the manufacture of ordnance. By his process, blocks of metal of any required size, from one to twenty or thirty tons weight, might be made of any tensile strength, and at Messrs. BESSEMER'S works the most satisfactory results had been obtained in the manufacture of ordnance with the metal fused for piston rods. With the degree of toughness afforded by this metal, the bursting of the gun became almost impossible, as its power of resisting a tensile strain was fifteen tons a

square inch above that of the best English bar iron, and experiments that have been made showed that tubular pieces could be crushed flat without exhibiting any signs of fracture. An eighteen pounder was exhibited, and it was stated, that the erection of the necessary apparatus for the production of steel by this process, inclusive of air-pumps and steam-engine, on a scale capable of producing from crude iron enough steel to make forty such gun blocks per day, would not exceed a cost of £5,000.

THE FUR TRADE.

Mink sable and Siberian squirrel furs are those most in demand, and are considered most fashionable. Although the demand for this class of furs is very great, yet, owing to the great supply, and the facility with which they are obtained, the prices are moderate. The best quality of mink sable is found in Maine; it is also procured in the Hudson Bay regions, the northwest, and found in small quantities in this State.

The most expensive of all furs is the Russian sable, which sell from \$500 to \$1,500 per set. This quality of fur is very scarce, and, besides, their exportation from Russia has been prohibited by the Emperor. Those that reach this country are smuggled away. The Hudson Bay sable is also quite scarce and expensive, being sold as high as \$100 to \$600 per set.

The opussum and muskrat furs abound in great quantities, and are easily obtained. Fitch is but little in demand, although a few years since it was much sought after. Buffalo skins are obtained in Minnesota, Dakota, Nebraska, Kansas and Northern Texas. Each year this animal becomes scarcer, and before many years they will doubtless be extinct. The animals are shot by the Indians and others, who sell the skins to traders. The hides are worth from three to twelve dollars apiece. The finest skins are greatly in demand by military officers, who use them instead of blankets, for which they are found far superior.

Many beaver skins, bought by dealers, are shipped by them to England, where they are used extensively for cloak linings. This animal is found among the Rocky Mountains and in the British dominions, and does not, as many suppose, decrease each year, although, it is said, they push farther west. The quantity of beaver skins obtained this year is equally as great as has been procured for several years back. Very few are now found about Lake Superior, where they were a few years since in great numbers.

Fur dealers resort to numerous tricks, by which they can dye furs of a common quality, and give them the appearance of those more rare. The price of all furs varies according to their shades of color and their scarcity. This business, although one of profit, yet involves considerable risk and outlay.

IMPROVEMENT IN THE MANUFACTURE OF SHOES.

We recently examined, at the store of F. S. VANDERPOEL, No. 60 Liberty-street, an invention which is attracting the attention of shoe and leather manufacturers. It is known as "HENRY PORT'S PATENT," and in

several particulars is very peculiar. The object is to facilitate the making of boots and shoes.

In the process here adopted, the shank and heel is of vulcanized rubber, in one piece, with rivets imbedded—the latter being the projecting points of a skeleton, protruding themselves at regular distances near the margin of the last. The uppers are lasted in the ordinary way, on the patent notched last, this being nothing more than a plain iron surface with depression to receive the rivet for the purpose of clinching. A punch or guide to enter the rivets at their proper place on the notched last is then applied, by a single stroke. The entire bottom (composed of two distinct pieces—the half-sole and shank piece) is next adjusted to its place—when another stroke clinches the whole in a finished shoe—nothing more being necessary than to substitute a smooth iron-faced last for the notched one, which effectually flattens the rivets.

The shoe thus made is claimed to be, as it really appears, as strong as any sewed work, and has an elasticity and softness of tread which commends it for use. Furthermore, the shank and heel being of rubber, are pronounced capable of outlasting the most durable upper. At the exhibition yesterday, a pair of shoes was made by hand in twenty minutes, after the upper was adjusted to the last; and we are informed that a single workman can easily turn out twenty-five pairs per day. Machinery is expected to work this patent with much greater efficiency. The patent, as we are informed, is offered for sale.

COCHINEAL IN INDIA.

An Indian correspondent of the London *Globe* has recently pointed out that the cochineal insect—the dye of which is at present, with the exception of a small quantity imported from Madeira, entirely derived from South America—is found over a vast tract of country in British India. It was introduced in 1801, when the lac insect was unknown, and cochineal was worth \$7 a pound, by a gentleman of the name of Dawson, tempted by a prize offered by the East India Company. The cactus, on which alone the insect flourishes, grows profusely throughout the southwestern provinces of the Indian peninsula. Within a very short time, the cochineal extended over 800 miles of country; but, as no persons who understood how to prepare the article for market had been introduced with the cochineal insect, the commercial speculation completely failed. In the course of time, the cochineal insect extended from Fort St. George, where it was landed, 4,000 miles inward. Here it is found in a wild state, but the natives have not yet learned how to use it for coloring silk and wool.

THE MOST POWERFUL GUN IN THE WORLD.

We are sure that none of our readers will fail to read the account, lately published, of the trial of the great Union gun. There have been guns made in Europe of much larger calibre than this, but none of them of sufficient strength to give any considerable velocity to the shot. This gun is twelve inches in diameter, and, being rifled, carries an elongated

shot weighing 423 lbs.—namely, the same weight as the round ball of RODMAN's fifteen-inch gun, which is 425 lbs.

The London *Engineer*, in speaking of the recent experiments at Shoeburyness, calls ARMSTRONG's two hundred-pounder the most powerful ordnance in the world; but the shot of the big gun at Fortress Monroe is more than twice as large, and the gun is consequently more than twice as powerful. These two guns, the twelve-inch rifled, and the fifteen-inch smooth bore, are the most powerful pieces of ordnance that have ever yet been made.

The introduction of iron-plated ships has made it very desirable for sea-coast defence to have enormous cannon, the shots from which would break the iron plates to pieces. But, until RODMAN's improved mode of casting was invented, it was impossible to make large cannon strong enough to bear the charges required to give effective velocity to balls weighing 400 lbs. These circumstances cause peculiar interest to attach to the trial of the twelve-inch rifled cannon, and we are much pleased at being able to present so good a description of this trial.

THE LAKE SUPERIOR COPPER REGIONS.

The Ontonagon *Miner* gives the following statement of shipments from the copper mines of that district for the past season :

	<i>Net lbs.</i>		<i>Tons.</i>	<i>lbs.</i>
National,.....	1,868,196	or	934	196
Minnesota,.....	3,760,800	"	1,880	800
Rockland,.....	938,034	"	469	34
Superior,.....	79,328	"	39	1,328
Flint Steel,.....	3,039	"	1	1,039
Nebraska,.....	14,683	"	7	683
Knowlton,.....	22,799	"	11	799
Ogima,.....	19,360	"	9	1,360
Evergreen Bluff,.....	125,895	"	62	1,895
Ridge,.....	62,138	"	31	138
Adventure,.....	6,844	"	3	844
Toltec,.....	4,455	"	2	455
Bohemian,.....	15,160	"	7	1,160
Total,.....	6,920,731	"	3,460	731

In looking over some statistics of production of the mines of this region, we had the curiosity to compare the increase therein shown with the increase of population. We find that in 1854 the population of the two copper counties of the Upper Peninsula (Houghton and Ontonagon) was 7,985; the production of ingot copper was 1,488 tons, and the value about \$495,200. This would give a yield of 373 lbs. to every man, woman and child, making each one a producer to the amount of \$75 60. In 1860, after an interval of six years, we find the population amounting to 13,810 souls, producing 6,000 tons ingot copper, worth \$2,400,000. This is at the rate of 866 lbs., or \$173 20 to each individual. The increase in the six years, as exhibited by the above figures, is, for the population, about 74 per cent.; for the production and value, 310 per cent.

LUCIFER MATCHES.

Mr. GORE, a recent writer on this subject, gives some astonishing statistics respecting this branch of manufacture. The firm of Messrs. DIXON employ 400 workmen, and generally have on hand £8,000 or £10,000 worth of timber. Each week they consume one ton of sulphur and make 43,000,000 matches, or 2,160,000,000 in the year. Reckoning the length of a match at two and a quarter inches, the total length of these would far exceed the circumference of the earth. Another calculation has been made, that the whole length of waxed cotton wicks consumed every year by one London manufacturer in the production of "vestas" would be sufficient to reach from England to America and back again. The magnitude of the figures relating to the English manufacture of matches is, however, insignificant, when we turn to the Austrian production. Two makers alone, M. POLLAK, at Vienna, and M. FURTH, in Bohemia, produce the amazing number of 44,800,000,000 matches yearly, consuming twenty tons of phosphorus, and giving employment to 600 persons. The low price at which these necessities of life are produced is equally astonishing. M. FURTH sells his cheapest boxes at one penny per dozen, each containing eighty matches. Another maker sells the plain boxes at two pence per 100, and 1,400 matches for one farthing; whilst a third maker sells a case of fifty boxes, each containing 100 lucifers, for four pence. The imports of matches into the United Kingdom are of the value of £60,000 yearly, representing the enormous number of 200,000,000 daily. The daily consumption is 50,000,000 more than the above number, or upwards of eight matches each day for every individual in the kingdom.

SIR R. MURCHISON AND DR. CUMMING.

The former writes to the Manchester *Examiner* in reference to the lectures of the latter :

"Dr. CUMMING having said that he consulted me, I must state what occurred between us at a merry morning *dejeuner* at Tunbridge Wells, where I met the reverend and eloquent gentleman at the house of a mutual friend. He asked me if I believed in an internal fiery state of the globe, and I replied that, in common with the majority of geologists, I inferred from the evidence of increase of temperature in deep shafts, and also from former and present outbursts of igneous matter, that the existence of a central heat could not, in my opinion, be denied. The words 'burning cauldron,' as used by the doctor, are, of course, not mine. If not misreported, Dr. CUMMING has, in the same lecture, completely misunderstood what I said to him on the subject of gold. I directed his attention to two verses in the book of JOB, which indicated that the patriarch was an observant mining geologist. The words (chap. xxviii. 1) are, 'Surely there is a vein for the silver;' and in the 6th verse, 'It (the earth) hath dust of gold.' Now, although gold, as well as silver, was originally found in veinstones or disseminated in solid rocks, yet the more precious metal is usually found in superficial *debris* of pebbles, sand, etc., (the 'dust' of JOB,) whilst silver is almost exclusively obtained from veinstones in mines of argentiferous galena. So far, therefore, Dr. CUMMING is right in announcing that I did say 'JOB

was a good geologist.' But if he added (as one report of his lecture has it) that I was led to anticipate the discovery of gold in Australia by the words of JOB, he is entirely in error."

LAWRENCE MACHINE SHOP.

The whole assets of the Lawrence machine shop were sold by auction, in January, for \$9,150, to JACOB PIERCE. According to vote of the stockholders, all the property was sold in one lot. It consisted of outstanding accounts exceeding \$18,000; promissory notes amounting, without interest, to over \$95,000; 212 shares of stock of Terre Haute, Alton and St. Louis Rail-Road, par \$50 per share; 487 shares of stock of Mississippi and Missouri Rail-Road, par \$100 per share. Also, 584 acres of land in Aroma, Ill.; 480 acres in Douglas county, Nebraska; 760 in Kankakee, McLean and Linn counties, Ill.; and 80 in Newaygo county, Michigan, and some other matters.

RECENT ITALIAN INVENTIONS.

The new life infused into the formerly inert limbs of Italy, has quickened the genius of its people into industrial activity. They are grappling with matters more serious than art or song. A great national exhibition has lately been held at Florence, and the products of Italian industry, though far from being abreast of those of France or England, are, to say the least, highly promising. The great want of that peninsula is coal, which has not been found, to any extent, on its surface. The lack of this must prove a serious drawback to the promotion of steam navigation and manufactures. But water-power does not, probably, exist in greater abundance in any other country of Europe, of the same extent, excepting Switzerland and Norway.

Among recent Italian inventions, the *pantelgraph*, brought out by CASSELLI, is worthy of special notice. This instrument is intended for the transmission of messages immediately from the writer's own hand, conveying a *fac-simile* of every word and letter, thus bearing the full authenticity of the hand and signature. A banker, for example, at one city, may hereafter draw a check or a draft upon his correspondent in another, which will be immediately honored. The telegraphic wire is made to deliver, at any distance, not only ideas, but *forms*, whether signatures, designs, portraits, or any other kind of resemblances. The action is so rapid, too, that twelve words per minute can be transmitted. "A small point, writes a correspondent, "something like the hand of a watch, runs semi-circularly, moved by a very simple machine, upon a chemically-prepared paper, tracing almost invisible lines, the aggregate of which soon embodies the words, or the various parts of the design, till the whole stands before us."

Among other Italian inventions, is a boring machine, now being used in opening a tunnel through the Alps. This instrument is propelled by condensed air. Another is a very ingenious contrivance for assisting rail-road trains up heavy grades, securing greater safety and better facilities on short curves than hitherto possessed. In this case, the power is obtained from water. A trial of the apparatus is said to have resulted quite successfully on one of the Sardinian rail-roads.

A NEW SUBSTITUTE FOR THE UPPER LEATHER IN BOOTS AND SHOES.

We hear that Mr. SZERELEMY, who is celebrated for the induration of the stone in the house of parliament with a preparation of zoppissa, has discovered the means of rendering a woven fabric completely impervious to wet or damp, and which will not crack or shrink, permits the perspiration to pass off, is exceedingly soft to the foot, and will fit it as a glove fits the hand. This new leather is called panonia. Other improvements, too, are made by Mr. WM. SOUTHWOOD, for the protection of the foot, by allowing the points of the rivets to terminate between the leather of the inner sole; the inside leather is reversed, the sucking part of it, therefore, instead of drawing, excludes the damp from the ground, and absorbs the perspiration. We understand a company has been formed for working these valuable discoveries, by which great advantages will be given to the public in both cheapness and comfort.

COTTON PRINTING IN FRANCE.

The *Constitutionnel* publishes the following results of the imperial decree, dated the 13th of February last, authorizing the importation of foreign cotton cloths free of duty, on condition of their being re-exported after having been printed at French mills. 70,000 pieces of unbleached cotton, of 46 yards each, have, since the publication of the decree, been imported into France, on the conditions specified. Of these, Mulhausen received 45,000 pieces, nearly all from Switzerland, and Rouen, 25,000, from England. These calicoes cost from 5c. to 6c. the metre less than French calicoes, being a difference of 15 per cent., which proves, says the *Constitutionnel*, that the negotiators of the treaty of commerce with England were correct in fixing the import duty on such articles at 15 per cent. The value of these cotton cloths temporarily admitted into France is estimated at from 1,500,000f. to 1,600,000f., to which the bleaching and printing is to be added, at the rate of from 28 to 20 centimes the metre, being an addition to the value of about 1,300,000f. Thus the facility granted by the decree of the 13th of February has been doubly beneficial to the French manufacturers. It opened markets to them which were closed in consequence of the high price of their calicoes, and enabled them to give employment to their operatives at a moment when trade was dull in consequence of the political events in the United States. This result has been obtained without injury to the French weavers. In fact, the price of French cloths have rather increased than diminished since the decree of the 13th of February. On the other hand, the experience obtained has proved that there is not an equal advantage to be obtained by the temporary admission of muslins, inasmuch as the price charged by the French manufacturers for these articles is nearly the same as the English. "In a word," concludes the *Constitutionnel*, "the decree of the 13th of February, which has been in existence little more than six months, has produced most satisfactory results, not only with respect to our foreign relations, but with regard to our home consumption. The inquiry instituted last year by the Superior Council of Trade leaves no doubt on this head. Calicoes cannot be printed at a cheap rate except in large quantities. A new pattern costs a large price, and must be spread over a large quantity of calico in order to be sold

cheap. Thus, for example, suppose a new pattern, including the price of the drawing and of the copper cylinder, costs 10,000*f.*; if the sale does not exceed 10,000 pieces, there is an expense of 1*f.* the piece. On the contrary, the cost is considerably diminished if there are 20,000 or 40,000 pieces printed. We have likewise to thank the government for the decrees of the 26th of August last, by which woollen cloths, plain or mixed, are admitted for printing, on condition of being re-exported."

NEW PATENTS IN THE UNITED STATES.

ROSS WINANS and THOMAS WINANS, of Baltimore, Md., for an improved steering apparatus for navigable vessels: They claim the combination of a vessel having a spindle-formed bottom, two rudders located below the bottom thereof, at opposite sides of the longitudinal centre, and mechanism to impart opposite movements to the rudders, substantially as described.

A. G. TOMPKINS, of New-York city, for an improved screw propeller: He claims constructing the propeller with a flaring-edged felloe or continuous rim, supported upon separate spokes or arms, that radiate from the driving shaft, all in the manner and for the purpose shown and described. This invention relates to an improvement in what is generally known as the screw propeller, and has for its object the obviating of friction and consequent loss of power attending the working of the ordinary submerged screw propeller.

ROBERT TAYLOR, of New-York city, for an improvement in canal lock gates: First, a circular face gate for canal locks, the face of which is smooth and attached to side pieces or arms radiating from the journals or axle inserted in the side of the water-way or sides of the lock, when used in combination with a similarly curved breast wall, which forms the lower part of the gate, substantially as described. Second, in combination with such a gate, a wicket leaf, hinged or hung thereto, and operating in the manner and for the purpose described and represented.

S. H. LONG, U. S. A., of Alton, Illinois, for an improved dredging machine: First, the construction and operation of a scraper for opening channels across bars, &c., substantially such as described. The application and use of such a scraper, with a steamtug or towboat for dragging it across the bar in the direction in which the channel is to be made, substantially as set forth and explained.

J. E. MALLOY, of New-York city, for an improvement in the preparation of fiber for the manufacture of paper: He claims the process of separating fiber from fiber-yielding plants, as set forth, consisting of the separate and successive steps of combining, rubbing and washing the plants in cold water; the whole forming one continuous operation, performed while the fiber is fresh and plant undesiccated, as set forth.

P. G. GARDINER, of New-York city, for an improvement in cotton presses: He claims the arrangement and combination of the right and left screws, pivoted nuts, and friction rollers resting on suitable ways, attached to the frame, when operating levers, in the manner and for the purpose substantially as described and set forth.

LEON PIERRE BARRE, of Paris, France, for an improvement in steam boilers: First, the fitting or fixing the tubes of tubular steam boilers by

means of small flanged tubes with collars by means of cement, for producing a steam and water-tight joint between the said boiler tubes and the end plates of tubular steam boilers. Second, the construction and employment of a mandrel for facilitating the cleaning of tubes in tubular boilers.

E. S. BOYNTON, of Alexandria, Virginia, for an improvement in iron masts, steeples, &c.: He claims the constructing of masts and spars, and such perpendicular structures as require height and stability, by means of flat bars of wrought iron or steel, made continuous by riveting the ends of the bars together, and winding them spirally around from the bottom to the top of the structure, one portion winding around in one direction and the other portion winding around in the reverse direction, so as to form spiral or diagonal braces throughout the structure, secured together at the points of intersection, and relying on said continuous braces for their support, without the aid of longitudinal or circular ribs or any internal framing, substantially as described.

G. M. COOPER, of Litchfield, Michigan, for an improvement in press for packing wool: He claims the two adjacent vertical fixed sides, two adjacent hinged and movable sides, supporting and guide rods, sliding yoke, and piston, the whole being combined and operating together in the manner set forth.

PHOTOZINCOGRAPHY.

At a meeting of the British Association for the Advancement of Science, held in September last, Col. Sir H. JAMES, R. E., described the process of "photozincography," by means of which photographic copies of the ordnance maps are cheaply multiplied, either on their original or on a reduced or enlarged scale. The process is applicable to the reproduction of old manuscripts and old printed books. A copy of Domesday Book (the part relating to Cornwall taken by this means) was exhibited to the meeting. The process consists in taking a photographic collodion negative, which is intensified by means of bichloride of mercury and sulphate of ammonia. Paper deprived of its size is saturated with a solution of gelatine and bichromate of potash. The paper thus prepared is exposed to the light beneath the negative, the result of which is, that the parts which have been exposed to the light become hardened and insoluble. The whole is then inked with a greasy ink, and afterwards washed in water, which removes the ink from all the parts except those on which the light has acted. A transfer to stone or zinc is then taken in the ordinary way, and copies are printed. Sir HENRY JAMES then described an improvement which had lately been made in the process, by means of which a reduced copy of a map or plan could be made, in which the minor detail (which would be useless on a reduced scale) could be omitted, and the names of places and other features of the plan given in full-sized legible characters.

H. E. MORING'S MONTHLY COFFEE CIRCULAR.

Stock of Coffee at the five principal Ports of the United States of America, on the 31st of December, 1861.

STOCK.	RIO, SANTOS.	DOMINGO.	LAGUAYRA.	MARACAIBO.	JAMAICA.	CEARA.	CEYLON.	JATA.		SINGAPORE.	TOTAL TONS.			
	Bags, 160 lbs.	Bags, 130 lbs.	Bags, 110 lbs.	Bags, 120 lbs.	Bags, 150 lbs.	Bags, 128 lbs.	Packages.*	Bags, 130 lbs.	Mats, 60 lbs.	Mats, 60 lbs.	1861.	1860.	1859.	1858.
	New-York,.....	44,017	3,500	1,800	11,968	440	4,960	3,000	880	1,000	4,511	3,759	5,452	2,615
Boston,.....	5,388	650	....	....	....	....	....	....	500	....	444	182	906	1,538
Philadelphia,.....	600	....	487	....	....	....	....	....	....	....	81	91	586	1,228
Baltimore,.....	15,000	....	....	....	....	....	....	....	....	....	1,071	1,810	1,844	315
New-Orleans,* ...	none.	none.	none.	none.	none.	none.	none.	none.	none.	none.	3,357	5,357	5,357	3,214
Total 31st Dec.,	65,005	4,150	1,787	11,968	440	4,960	3,000	880	1,800	....	6,107	9,149	13,595	8,910
do. 1st "	80,622	3,657	1,383	13,284	275	229	8,428	2,200	2,700	1,500	7,222	6,189	11,360	7,010
Decrease,.....	15,617	....	....	1,321	....	....	5,428	1,320	900	1,500	1,115	2,960	2,215	1,900
Increase,.....	....	493	404	....	165	4,731	....	....	....	....	....	....	....	....

* No data from New-Orleans since 1st September.

* Ceylon, 3,000 mats of 51 lbs.

Stock in New-York, 1st January, 1862,	4,511 tons,	against 1st Decbr', 1861,	5,110 tons.	Decrease,	599 tons,	or 12 per cent.
Boston, do. do.	444 do. do.	do. do. do.	609 "	do.	165 do. "	27 do.
Philadelphia, do. do.	81 do. do.	do. do. do.	263 "	do.	182 do. "	68 do.
Baltimore, do. do.	1,071 do. do.	do. do. do.	1,240 "	do.	169 do. "	14 do.
New-Orleans, do. do.	none. do. do.	do. do. do.	none. "	do.	.. do. "	.. do.

Stock, 1st December, .. tons,	7,222	6,189
Add receipts in do., ... "	4,346	7,648
Total supply, tons,	11,568	13,837
Deduct stock, 31st Dec., "	6,107	9,149

Total, 1st January, 1862, 6,107 tons, against 1st Decbr', 1861, 7,222 tons. Decrease, 1,115 tons, or 15 per cent.

Distribution in Decbr., tons, 5,461 6,688

Stock 1st January, 1862,	6,107 tons,	against 1st January, 1861,	9,149 tons.	Decrease,	3,042 tons,	or 33 per cent.
1st December, 1861,	7,222 "	do. 1st December, 1860,	6,189 "	Increase,	1,033 "	17 do.
1st November,	9,560 "	do. 1st November,	2,575 "	do.	6,955 "	271 do.
1st October,	9,745 "	do. 1st October,	2,719 "	do.	7,026 "	259 do.
1st September,	13,883 "	do. 1st September,	4,370 "	do.	9,513 "	216 do.
1st August,	14,211 "	do. 1st August,	3,083 "	do.	11,178 "	368 do.
1st July,	14,675 "	do. 1st July,	5,350 "	do.	9,325 "	174 do.
1st June,	11,104 "	do. 1st June,	4,710 "	do.	6,394 "	186 do.
1st May,	6,971 "	do. 1st May,	3,503 "	do.	3,163 "	89 do.
1st April,	5,759 "	do. 1st April,	4,155 "	do.	1,604 "	39 do.
1st March,	8,452 "	do. 1st March,	5,820 "	do.	2,632 "	45 do.
1st February,	9,935 "	do. 1st February,	8,273 "	do.	1,662 "	20 do.
1st January,	9,149 "	do. 1st January,	13,595 "	do.	4,446 "	38 do.

Average for last 13 months, 9,752 tons, against the previous 13 months, 5,673 tons. Increase, 4,079 tons, or 72 per cent.

Distribution in January, tons	9,659	12,484
do. February, "	11,841	10,640
do. March, "	9,247	5,926
do. April, "	5,859	4,665
do. May, "	4,684	6,449
do. June, "	4,254	5,862
do. July, "	8,045	5,872
do. August, "	5,644	4,056
do. September, "	8,130	6,748
do. October, "	2,987	8,627
do. November, "	4,526	5,498
do. December, "	5,461	4,688
Total in 12 months, .. . tons,	80,290	80,968
do. first -- months, .. . "	....	....
Average per month, ... "	6,691	6,747

THE COFFEE MARKETS OF THE WORLD.

Imports, Stocks and Distribution of Coffee in the five principal Ports of the United States, up to 31st December.

IMPORTS UP TO 31ST OF DECEMBER.	1861.	1860.	1859.	1858.	Average.	NEW-YORK QUOTATIONS.
New-York,.....	47,965 tons.	32,648 tons.	41,630 tons.	41,501 tons.	40,936 tons.	Including duty of 5 cents per pound.
Boston,.....	8,311 "	4,147 "	6,835 "	8,339 "	5,658 "	
Philadelphia,.....	6,547 "	6,699 "	12,907 "	10,310 "	9,116 "	
Baltimore,.....	9,805 "	12,581 "	16,837 "	14,498 "	13,430 "	
New-Orleans,.....	9,620 "	20,442 "	26,061 "	23,874 "	19,999 "	
Total,.....	77,248 tons.	76,517 tons.	104,270 tons.	98,522 tons.	89,139 tons.	
Add stock, January 1st,.....	9,149 "	13,595 "	8,910 "	22,740 "	13,598 "	<i>Cents per lb.</i>
Total supply in 11 months,....	86,397 tons.	90,112 tons.	113,180 tons.	121,262 tons.	102,737 tons.	Rio, prime,.... 18½ @ 19 four months.
Deduct stock, December 31st,....	6,107 "	9,149 "	13,595 "	8,910 "	9,440 "	" fair,..... 17½ @ 18 " "
Distribution in 12 months,.....	80,290 tons.	80,968 tons.	99,585 tons.	112,352 tons.	93,297 tons.	Laguayra,.... 23 @ 24 " "
" monthly average,....	6,691 "	6,747 "	8,299 "	9,363 "	7,775 "	Java,..... 25 @ 26 four and six mos.
						Ceylon,..... — @ 21 " "
						St. Domingo,.. — @ 15 cash in bond.

Stocks, Receipts and Distribution of Coffee in the six principal Depots of Europe, up to 1st December.

STOCK 1ST DECEMBER.	1861.	1860.	1859.	1858.	Average.	RECEIPTS AND DISTRIBUTION.	1861.	1860.
In Holland,..... tons,	16,150	24,250	28,650	22,100	22,788	Total stock, January 1st,..... tons,	45,100	52,250
Antwerp,..... "	1,950	1,750	2,500	4,550	2,687	do. receipts up to December 1st,.... "	181,900	160,800
Hamburg,..... "	6,500	1,500	4,000	4,250	4,062	Total supply for 11 months,..... "	227,000	213,050
Trieste,..... "	2,800	2,200	1,400	2,950	2,338	Deduct stock, December 1st,..... "	38,350	40,350
Havre,..... "	2,250	2,800	4,300	2,200	2,888	Distribution in 11 months,..... "	188,650	172,700
Great Britain,..... "	8,700	7,850	10,000	8,150	8,675	do. in December,..... "	16,500	13,650
Total, December, 1st,.... tons,	38,350	40,350	50,850	44,200	43,438	Receipts in do. "	14,300	10,150
do. November 1st,.... "	40,550	43,850	53,250	50,900	47,136	Average distribution per month,..... "	17,150	15,700
do. October 1st,.... "	48,650	50,850	55,150	59,650	53,575			

The Crop year of Ceylon, ending 30th September, yielded 30,159 tons, against 31,643 tons in 1860; 29,228 tons in 1859, and 27,632 tons in 1858, average of 29,665 tons in four years.

1862.]

Monthly Coffee Circular.

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H. E. MORING'S MONTHLY SUGAR CIRCULAR.

Imports, Stocks and Distribution of Sugar in the four principal Ports of the United States, up to 31st December.

IMPORTS UP TO 31st OF DECEMBER.	1861.	1860.	1859.	1858.	Average.	NEW-YORK QUOTATIONS.
New-York,.....	203,464 tons.	251,011 tons.	203,792 tons.	193,799 tons.	215,517 tons.	Including 2½ cents per pound duty. <i>Cents per lb.</i>
Boston,.....	30,914 "	49,204 "	33,555 "	31,794 "	36,450 "	
Philadelphia,.....	21,347 "	32,399 "	30,595 "	26,376 "	27,679 "	
Baltimore,.....	13,254 "	31,849 "	22,154 "	24,095 "	22,588 "	
Total,.....	268,979 tons.	364,463 tons.	295,429 tons.	281,064 tons.	302,484 tons.	
Add stock, January 1st,.....	56,394 "	24,140 "	15,333 "	18,103 "	23,493 "	Cuba, fair refining,..... 7½ @ 7½ four mos.
Total supply in 12 months,.....	325,373 tons.	388,603 tons.	310,762 tons.	299,167 tons.	330,977 tons.	" fair grocery,..... 8 @ 8½ "
Deduct stock, December 31st,.....	27,040 "	56,394 "	24,140 "	15,333 "	30,577 "	" Havana, No. 12, .. 8½ @ 8½ "
Distribution in 12 months, ...*	297,733 tons.	332,209 tons.	286,622 tons.	283,834 tons.	300,100 tons.	" Melado,..... 4½ @ 5½ "
" monthly average,.....	24,811 "	27,684 "	23,885 "	23,653 "	25,005 "	Pernams, Amer. brown, 7½ @ 7½
						Manila, current clayed, .. 7½ @ 7½ six mos.

* Including export of 24,599 tons from 1st January to 31st July—no export since.

Stocks, Receipts and Distribution of Sugar in the six principal Depots of Europe, up to 1st December.

STOCK, 1st DECEMBER.	1861.	1860.	1859.	1858.	Average.	RECEIPTS AND DELIVERIES.	1861.	1860.
In Holland,..... tons,	14,750	3,250	6,500	3,000	6,875	Total Stock, January 1st,..... tons,	90,850	125,250
Antwerp,..... "	2,450	350	3,200	1,200	1,800	" receipts up to December 1st,..... "	663,150	551,000
Hamburg,..... "	6,500	3,500	5,500	500	4,000	Total supply for 11 months,..... "	754,000	676,250
Trieste,..... "	3,950	2,100	4,100	6,700	4,213	Deduct stock, December 1st,..... "	152,300	95,950
Havre,..... "	7,000	4,350	3,300	250	4,975	Distribution in 11 months,..... "	601,700	580,300
Great Britain,..... "	117,650	82,400	111,400	84,950	99,100	" in November,..... "	53,700	52,700
Total, December 1st,..... "	152,300	95,950	139,000	96,600	120,963	Receipts..... "	36,950	24,650
" November 1st,..... "	139,050	124,000	160,400	121,300	143,682	Average distribution per month,..... "	54,700	52,755
" October 1st,..... "	183,050	189,050	162,300	136,350	156,438			

Monthly Sugar Circular.

February,

Stock of Sugar at the four principal Ports of the United States of America on the 31st of December, 1861.

1862.]

Monthly Sugar Circular.

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STOCK.	Hhds.		MELADO, Hhds., 1,400 lbs.	Boxes, 450 lbs.	Bags, as per speci- fication.	JAVA, Baskets, 600 lbs.	TOTAL TONS.				SPECIFICATION OF BAGS.				
	Foreign, 1,400 lbs.	Domestic, 1,100 lbs.					1861.	1860.	1859.	1858.	MANILA, 70 lbs.	CHINA, 130 lbs.	SINGAPORE, SIAM and CALCUTTA, 130 lbs.	BRAZIL, 150 lbs.	MAURITIUS, 160 lbs.
New-York,	20,386	376	1,426	17,514	94,544	....	21,264	36,822	19,571	10,483	62,724	16,250	1,979	13,591	....
Boston,	1,206	....	....	8,890	63,963	....	3,629	9,263	2,859	1,569	60,963	....	....	3,000	....
Philadelphia, ...	746	....	....	1,852	2,400	....	1,005	3,119	471	928	....	....	....	2,400	....
Baltimore,	1,441	214	....	1,267	12,000	....	1,742	7,690	1,209	2,353	9,000	....	....	3,000	....
Total, 31st Dec., do. 1st "	23,779 23,246	590 1,128	1,426 1,594	24,493 21,604	172,907 226,568	.... 2,352	27,640 32,687	56,394 67,855	24,140 30,887	15,333 20,284	132,687 180,496	16,250 21,700	1,979 3,200	21,991 19,161	.... 2,001
Decrease,	4,467	538	168	2,889	53,651	2,352	5,047	11,461	6,247	4,951	47,809	5,450	1,221	....	2,001
Increase, .....	....	....	....	....	....	....	....	....	....	....	....	....	....	2,880	....

Stock in New-York, 1st Jan., 1862, 21,264 tons, against, 1st Dec., 1861, 24,120 tons.	Decrease, 2,856 tons, or 12 per cent.	Stock, 1st December, tons, 32,687	1861.	1860.
Boston, " 3,629 " " " 5,844 "	" 2,215 " or 38 "	Add receipts in do.,... "	12,613	8,879
Philadelphia, " 1,005 " " " 972 "	Increase, 33 " or 3 "	Total supply,	45,300	76,734
Baltimore, " 1,742 " " " 1,751 "	Decrease, 9 " or 1 "	Deduct stock, 31st Dec. "	27,640	56,394
Total, 1st Jan., 1862, 27,640 tons, against, 1st Dec., 1861, 32,687 tons.	Decrease, 5,047 tons, or 15 per cent.	Distribution in Dec. "	17,660	20,340

Stock, 1st January, 1862, 27,640 tons, against, 1st January, 1861, 56,394 tons.	Decrease, 28,754 tons, or 51 per cent.	Distribution in Jan., tons, 19,446	14,043
1st December, 1861, 32,687 " " " 67,855 "	" 35,168 " or 52 "	" Feb., " 24,176	15,917
1st November, " 35,182 " " " 75,888 "	" 40,706 " or 54 "	" March, " 23,372	21,846
1st October, " 42,377 " " " 89,458 "	" 47,051 " or 54 "	" April, " 23,060	24,857
1st September, " 63,557 " " " 109,106 "	" 45,549 " or 42 "	" May, " 38,980	40,059
1st August, " 82,076 " " " 95,050 "	" 12,974 " or 13 "	" June, " 21,735	28,165
1st July, " 91,140 " " " 83,169 "	Increase, 7,971 " or 9 "	" July, " 29,883	40,381
1st June, " 83,958 " " " 65,673 "	" 18,280 " or 29 "	" Aug., " 33,646	26,176
1st May, " 67,281 " " " 53,701 "	" 13,580 " or 21 "	" Sept., " 27,544	47,563
1st April, " 55,884 " " " 30,831 "	" 25,053 " or 51 "	" Oct., " 14,525	32,719
1st March, " 42,323 " " " 21,510 "	" 21,313 " or 100 "	" Nov., " 14,206	20,143
1st February, " 46,825 " " " 18,930 "	" 27,895 " or 147 "	" Dec., " 17,660	20,340
1st January, " 56,394 " " " 24,140 "	" 32,254 " or 134 "	Total in 12 months, " 297,733	332,209
Average for the last 13 mos., 55,986 tons, against the previous 13 months, 60,900 tons.	Decrease, 4,914 tons, or 8 per cent.	" first 11 " " 24,811	27,684
		Average per month, " "	

COMMERCIAL CHRONICLE AND REVIEW.

THE new year opens with a dullness in commercial circles. The banks of the city determined, in convention, on the 28th December, to suspend specie payment. This step was taken on Monday, 30th. The banks of Boston, Philadelphia, Baltimore, Providence, Albany and other cities followed suit. A temporary check is therefore given to the foreign export of gold, and the banks will now prepare for resumption at a time when the government can repay them for their large advances.

The new measures of Congress have an important bearing upon the financial and commercial affairs of the country. Congress passed, on the 26th December, a new tariff, in reference to tea, coffee and sugar. A supplementary or explanatory act was passed on the 11th January. (See page 187.)

The technicality upon which Secretary CHASE based his decision, that teas and coffees shipped before the 5th of August for this country should enter free of duties, has led Collector BARNEY to the decision, that if shipped after that date they shall pay duties according to the act of December 24th, and not under the act of August 5th. The Secretary, in his decision, stated that tea and coffee, direct from the country of production, were duty-free before the 5th of August. The act of August 5th provides, that any goods "on shipboard and bound for the United States, on or before the 5th of August, shall pay according to the rates then and before established." The act of December 24th provides, "that in lieu of the duties heretofore imposed by law, there shall be levied on the merchandise enumerated," &c. As teas shipped before the 5th of August paid no duties, the Secretary ruled that they were not included in the "merchandise enumerated," and decided that they should enter free of duty, as before. The Collector decides, that as teas shipped after that time would have had to pay the duties established by the act of August 5th, therefore they are included in the "merchandise enumerated," and must pay twenty cents per pound, by the act of December 24.

On the 9th January a bill was introduced into the United States Senate to punish frauds on the United States Treasury, and referred to a special committee. A bill was also considered to abolish the franking privilege, which was afterwards passed by the House of Representatives. On the 15th a resolution was offered by the Committee on Ways and Means, recommending such taxation as, with the tariff, shall produce \$150,000,000 per annum. This proposition, and numerous others in reference to revenue and taxation, are now under consideration.

Mr. LATHAM, Senator, of California, has presented a petition from San Francisco for a line of mail steamers between that port and China. On the 2d January Senator LATHAM presented a resolution, instructing the Committee on Finance to inquire into the expediency of establishing a distinct bureau for the Treasury Department, to regulate and control the mint, which was agreed to. A bill was introduced into the House, and

referred, providing for the defence of Philadelphia and the Delaware River. On the 6th January a speech was made in the House of Representatives, by Hon. ROSCOE CONCKLING, in relation to the battle of Ball's Bluff.

On the 8th, a bill was reported to the House of Representatives, in favor of appropriating \$35,000 for exhibiting American products at the World's Fair. A bill was adopted, requesting the Secretary of the Treasury to show as near as possible, the floating debt of the United States. The Committee of Ways and Means was instructed to consider the expediency of raising \$100,000,000 by taxation, and also to consider the expediency of pledging the public lands to pay the United States debt and interest; also a bill to tax passenger travel on rail-roads, to tax transfers of stock, &c., and five dollars docket fees on any suit commenced in a court of record.

On the 15th January, a bill was introduced into the Assembly of New-York to raise a tax for the support of families of volunteers. The Committee of Ways and Means requested to elaborate a bill for the more effectual equalization of property as a basis for taxation.

The annual returns of the custom-house at this port, show extraordinary features in our exports. Of domestic produce, the gross export was one hundred and thirty-one millions of dollars. We present the following as the general results compared with the four previous years:

EXPORTS OF THE PORT OF NEW-YORK, 1857—1861.

	1857.	1858.	1859.	1860.	1861.
Dom. produce, . . .	\$61,803,235	\$53,949,703	\$59,929,531	\$95,468,296	\$131,235,995
Foreign, free, . . .	4,229,776	1,601,111	2,999,881	2,258,710	2,154,947
“ dutiable, . . .	7,331,144	4,087,398	5,050,909	5,765,274	5,203,959
Specie & bullion, . . .	44,360,174	26,001,431	69,715,866	42,191,171	4,236,250
Total exports, . . .	\$120,886,296	\$85,639,643	\$137,696,187	\$145,683,451	\$142,931,151

On the other hand, the imports for consumption, for 1861, are reduced nearly sixty-six per cent. compared with the previous year. We present the general results for five years, the specie items for the past year forming a larger sum than ever before:

IMPORTS AT NEW-YORK.

ENTERED FOR	1857.	1858.	1859.	1860.	1861.
Consumption, . . .	\$122,937,013	\$102,942,737	\$176,765,309	\$154,660,498	\$54,254,661
Warehoused, . . .	73,342,349	25,635,519	36,875,054	46,741,185	41,072,228
Free goods, . . .	21,440,734	22,024,691	28,708,732	28,006,447	30,353,918
Specie,	12,898,033	2,264,120	2,816,421	8,852,330	37,088,413
Total,	\$230,618,129	\$152,867,067	\$245,165,516	\$238,260,460	\$162,768,790
Withdrawn from warehouse, . . .	40,609,890	37,499,542	26,857,089	31,103,924	39,717,259

The United States forces having taken possession of Port Royal, South Carolina, they have taken large quantities of Sea Island and other cotton. A shipment of three thousand bales, by the steamer VANDERBILT, reached this port early in January, and realized high prices. For Sea Island cotton, some brought 63 cents per pound. A correspondent says:

“Engines and negroes competent to superintend them, are to be found on every large plantation from which they have not been carried off or shot by their fugitive masters. Mr. LANE, the government agent, is

actively employed in the collection and ginning of cotton on this and the adjacent islands, and he employs for the running of engines and gins only the negroes on the plantations. Whatever is necessary to prepare the cotton for shipment or market—except receiving pay for it—has always been their regular duty, and very few except the slaves have the necessary knowledge and experience. It is the testimony of Mr. LANE, who is as far as possible from being an abolitionist, that the negroes under him do their work faithfully and well, with very little supervision, and no means of compulsion whatever. By their help, the cotton is ginned and packed for about \$2 50 a bale—a price for which it could not possibly be done in New-York. There is still greater saving in cost of transportation and risk of damage. One hundred thousand pounds of unginced cotton contain seventy thousand pounds of seed and refuse, and, beside the freight of such a bulk of waste matter, the seed is wanted here for planting. The great liability to heating and to injury by water is reason enough for not sending it north in bulk. When ginned and packed in bales, it is compressed, and the water cannot penetrate. Loosely gathered, the whole may be rendered valueless by exposure.”

The prices of produce at the end of the year 1861 were well-sustained. We annex the ruling prices, compared with January, 1858—1861.

We have, in former volumes, given with this annual summary a comparative table of prices on the opening of the year. The labor in completing the other tables, owing to changes in the tariff, will make this a valuable one, but it will be very useful for reference throughout the year.

COMPARATIVE PRICES AT NEW-YORK, JANUARY 3, 1858—1862.

	1858.	1859.	1860.	1861.	1862.
Ashes, pots,.....100 lbs.	\$ 5 75	\$ 5 62½	\$ 5 12½	\$ 5 00	\$ 6 25
“ pearls,..... “	5 75	6 00	5 37½	5 00	6 25
Breadstuffs:					
Wheat flour, State,..... bbl.	4 25	4 30	4 30	5 35	5 50
“ best extra Genesee, “	7 50	7 75	7 50	7 50	7 50
Rye flour, “	4 00	3 75	4 00	4 00	3 87½
Corn meal, Jersey,..... “	3 25	3 40	3 90	3 15	3 00
Wheat, white Genesee,..... bush.	1 30	1 40	1 50	1 45	1 50
“ white Michigan,..... “	1 20	1 25	1 50	1 45	1 50
“ white Ohio,..... “	1 15	1 30	1 45	1 45	1 48
“ white Southern,..... “	1 25	1 45	1 45	1 45	1 52
“ red Western,..... “	1 10	1 20	1 30	1 38	1 42
“ Chicago spring,..... “	73	83½	1 18	1 18	1 30
Rye, Northern,..... “	43	78	92	75	83
Oats, State,..... “	65	53	46½	37	42
Corn, old Western,..... “	62	78	90	72	64
“ new Southern,..... “	..	75	88	72½	68
Cotton, middling Uplands,..... lb.	8½	12	11	12½	35½
“ middling New-Orleans,..... “	9	12½	11½	12½	36
Fish, dry cod,..... quintal,	3 25	4 00	4 50	3 50	3 50
Fruit, bunched raisins,..... box,	1 95	2 05	2 35	1 75	3 20
“ currants,..... lb.	9	7½	6	4½	9
Hay, shipping,..... 100 lbs.	65	80	1 00	90	77½
Hemp, regular American,..... ton,	100 00	125 00	145 00	152 50	210 00
Hops,..... lb.	10	15	16	25	20
Iron, Scotch, pig,..... ton,	26 00	25 00	24 50	21 00	23 00
“ English, bars,..... “	62 50	55 00	53 00	52 00	57 00
Laths,..... per M.	1 25	2 12½	2 00	1 30	1 25
Lead, Spanish,..... ton,	4 75	5 50	5 65	5 25	7 00
“ Galena,..... “	none.	5 85	5 77½	5 50	7 00½

	1858.	1859.	1860.	1861.	1862.
Leather, hemlock, sole, light,.....lb.	\$0 22 $\frac{3}{4}$	\$0 24	\$0 20	\$0 19 $\frac{1}{2}$	\$0 20 $\frac{1}{2}$
“ oak,.....“	28	30	30	27	28
Lime, common Rockland,.....bbl.	85	75	75	75	65
Liquors:					
Brandy, new Cognac,.....gall.	4 25	3 00	3 00	3 00	4 00
Domestic whiskey,.....“	22	24 $\frac{1}{2}$	26	19 $\frac{3}{4}$	20 $\frac{1}{2}$
Molasses, New-Orleans,.....“	35	37	53	37	53
Naval stores:					
Crude turpentine,.....bbl.	2 87 $\frac{1}{2}$	3 68 $\frac{1}{2}$	3 43 $\frac{1}{2}$	2 75	10 00
Spirits “.....gall.	38	49	44 $\frac{1}{2}$	35	1 47 $\frac{1}{2}$
Common rosin, North Carolina,.....bbl.	1 30	1 55	1 65	1 25	6 00
Oils:					
Crude whale,.....gall.	60	55	52	51	48
Sperm,.....“	1 00	1 36	1 40	1 40	1 40
Linseed,.....“	55	65	57	50	86
Provisions:					
Pork, old mess,.....bbl.	15 40	17 00	16 37 $\frac{1}{2}$	16 00	12 00
“ old prime,.....“	13 00	13 00	11 75	10 50	8 50
Beef, city mess,.....“	10 00	9 00	9 00	6 00	5 50
“ repacked Chicago,.....“	12 50	9 50	9 50	9 00	11 00
Beef hams, extra,.....“	15 50	15 00	14 50	14 00	14 50
Hams, pickled,.....lb.	8 $\frac{3}{8}$	9 $\frac{1}{2}$	9 $\frac{1}{2}$	8	6
Shoulders, pickled,.....“	6 $\frac{1}{4}$	6 $\frac{1}{4}$	6 $\frac{1}{2}$	5 $\frac{1}{2}$	4 $\frac{3}{4}$
Lard,.....“	9 $\frac{1}{4}$	11 $\frac{1}{2}$	10 $\frac{1}{2}$	10 $\frac{3}{8}$	8 $\frac{3}{8}$
Butter, Ohio,.....“	16	18	16	14	15
“ State,.....“	20	20	20	18	19
“ Orange County,.....“	24	25	24	22	22
Cheese,.....“	8	9	11	10	7
Rice, good,.....100 lbs.	3 25	3 50	4 20	4 00	7 00
Salt, Liverpool, ground,.....sack,	80	.90	1 15	75	86
“ fine, Ashron's,.....“	1 30	1 38	1 95	1 60	1 70
Seeds, clover,.....lb.	9 $\frac{1}{2}$	9 $\frac{1}{2}$	8 $\frac{1}{2}$	8 $\frac{3}{4}$	7 $\frac{1}{2}$
Sugar, Cuba, good,.....“	7	7	7 $\frac{1}{2}$	6 $\frac{1}{4}$	8 $\frac{1}{4}$
Tallow,.....“	10	10 $\frac{1}{2}$	10 $\frac{1}{2}$	9 $\frac{3}{4}$	9 $\frac{3}{8}$
Whalebone, polar,.....“	1 10	95	90	88	76
Wool, common fleece,.....“	27	3	40	30	50

The annual report of the State Engineer of New-York, for 1861, reports the length of canals in the State amounts to eight hundred and eighty-six miles, and there are seventeen reservoirs to supply it with water. Seven feet of water have been maintained throughout the season. The eastern division comprises all the lines of canal east of Oneida Lake; the middle division, all lying between Oneida Lake and Wayne county; and the western division, all in the western part of the State. To finish the enlargement will require \$391,000, exclusive of land damages. There will be also an additional item of \$75,000 for bottoming out the Erie canal, when the work was prematurely accepted by former canal commissioners and engineers. Number of unfinished contracts, seventy-six. It is completed through the Cayuga marshes already. The amount paid last year for bottoming out was \$59,229. Mr. RICHMOND recommends an increased expenditure on the Erie basin; also the construction of thirteen locks additional between Rochester and the Cayuga marshes. The reservoirs have been completed on the Black River Canal, capable of discharging 11,000 cubic feet per minute. The State Engineer states that there will be an additional expenditure required for the completion of several of the lateral canals; but the aggregate figure is less than \$25,000.

The trustees of the New-York and Erie Rail-Road Company, on the 31st December relinquished the property to the new organization.

The following carefully prepared table gives the wholesale average price of flour in the Philadelphia market in the month of December for 66 years past:

1861,.....	\$ 5 37	1839,.....	\$ 5 73	1817,.....	\$ 9 37
1860,.....	4 87	1838,.....	8 40	1816,.....	13 00
1859,.....	5 31	1837,.....	9 62	1815,.....	9 25
1858,.....	5 12	1836,.....	11 00	1814,.....	8 00
1857,.....	5 12	1835,.....	6 75	1813,.....	8 75
1856,.....	6 66	1834,.....	4 90	1812,.....	10 25
1855,.....	8 86	1833,.....	5 37	1811,.....	10 00
1854,.....	9 18	1832,.....	5 62	1810,.....	11 25
1853,.....	6 86	1831,.....	5 25	1809,.....	7 50
1852,.....	5 16	1830,.....	5 31	1808,.....	6 75
1851,.....	4 15	1829,.....	5 43	1807,.....	6 75
1850,.....	4 71	1828,.....	8 00	1806,.....	7 50
1849,.....	4 87	1827,.....	5 00	1805,.....	8 26
1848,.....	5 14	1826,.....	5 25	1804,.....	11 00
1847,.....	6 49	1825,.....	4 87	1803,.....	7 50
1846,.....	4 76	1824,.....	4 87	1802,.....	6 50
1845,.....	6 06	1823,.....	6 12	1801,.....	7 25
1844,.....	4 29	1822,.....	6 50	1800,.....	11 00
1843,.....	4 37	1821,.....	6 25	1799,.....	10 00
1842,.....	4 50	1820,.....	4 50	1798,.....	9 75
1841,.....	6 42	1819,.....	6 12	1797,.....	8 50
1840,.....	5 00	1818,.....	9 00	1796,.....	11 00

Many comments have been made by the merchants, custom-house brokers and employés, since the passage of the August tariff bill, concerning the importance and value of the warehousing system, and the opinions expressed have been unanimous in its favor. Indeed, a petition has been indited, and signed by many of the large importing merchants of the city, urging the restoration of the warehousing system as it existed previous to August 5, 1861. Below will be found the petition, together with Collector BARNEY's letter to Secretary CHASE on the subject, in which he concurs with the merchants in their views of the importance of its restoration.

New-York, Nov. 9, 1861.

To Hon. HIRAM BARNEY, Collector of the port of New-York:

Dear Sir,—The undersigned, merchants of this city, ask your attention to the restoration of the bonding privileges which for some years, and, till recently, were enjoyed by them under the revenue laws of the country.

By the act of Congress passed in the month of August last, limiting the time to three months during which goods in bond may be either entered for consumption without payment of extra duties or may be exported, the advantages of the system are all but annulled; and the undersigned do not understand that the government derives any particular benefit from the withdrawal of a privilege that is valuable to the merchants, and of much importance to the commercial interests of this city generally.

The undersigned, therefore, respectfully request you to represent to the Treasury Department at Washington, that a deep interest is felt by the merchants of this city in the restoration of the bonding system, as it existed prior to the 5th of August, and to use your influence in having the privileges, which are now limited to three months, extended to three years.

New-York may thus continue to be, as it has hitherto been, a depot of foreign merchandise and a distributing mart for all parts of the world, at the same time offering the merchant the choice of the foreign or home markets during the whole term of three years.

Respectfully yours,

ARCHER & BULL, JOSIAH MACY'S SONS, FOGG BROS., UDOLPHO WOLFE, A. A. LOW & BROS., C. H. MARSHALL, W. W. DEFOREST & Co., M. HATHAWAY, GRINNELL, MINTURN & Co., GOODHUE & Co., HOWLAND & ASPINWALL, OLYPHANT, SON & Co., E. M. TIERS & Co., JOHN CASWELL & Co., BUCKLIN & CRANE, BOOTH & EDGAR, MAITLAND, PHELPS & Co., GOODRICH & WALKER, E. D. MORGAN & Co., CARY & Co., N. L. & GEO. GRISWOLD, ISAAC SHERMAN.

COLLECTOR BARNEY'S LETTER.

Custom-House, New-York, Collector's Office, Nov. 15, 1861.

Sir,—I have the honor to transmit herewith a memorial which has been addressed to me by some of the wealthiest and most respectable importers of this city, praying for a restoration of the warehouse system as it existed prior to August 5, 1861. I most cheerfully comply with their request that I should represent to the department the deep interest which is felt by the merchants of the city in the re-establishment of the privileges they enjoyed under the "Act to extend the Warehousing System," passed April 28, 1854, and I cannot do so more forcibly than by submitting the appeal which they, themselves, have prepared.

Very respectfully, your obedient servant,

HIRAM BARNEY, *Collector.*

HON. SALMON P. CHASE, *Secretary of the Treasury.*

The State Auditor of Michigan reports to the legislature that the total available means in the treasury the past year were \$1,230,001, including \$523,083 derived from the war fund, and the balance from taxes, amount left over from the previous year, and other sources of revenue. The expenses of the year have been \$1,258,235, (or \$28,000 in excess of receipts,) the war portion of the expenses being \$539,428. Of this sum the government is sure to refund \$500,000, or enough to turn upon that portion of the national tax which falls to Michigan. The deficit of \$28,000 is more than balanced by the taxes due from the Detroit and Milwaukie and the Michigan rail-roads; from the former \$22,000, and from the latter \$35,000. The total debt of the State is \$2,736,264, including \$449,100 war loan bonds. The aggregate delinquent taxes returned in 1860 was \$318,423 60. The State is debtor to the counties \$33,633 01, and credited by \$200,146 72.

The auditor's statement of the condition of the securities and circulation of the banks of Illinois, as they existed on Monday, the 6th day of January inst., shows that the total amount of outstanding circulation is now reduced to \$1,415,076, secured by a total of bonds amounting to \$1,411,772, estimated, we presume, at their present valuation.

STATISTICS OF TRADE AND COMMERCE.

I. TRADE OF ROXBURY. II. CITY TOBACCO TRADE. III. COMMERCE OF PORTLAND. IV. TRADE OF THE LAKES. V. EXPORT OF SEWING MACHINES. VI. CONSUMPTION OF WINE. VII. SHIP LOAD FOR NORTH CAROLINA. VIII. SALE OF SEA-ISLAND COTTON. IX. TIDE-WATER RECEIPTS. X. HUDSON BAY. XI. STOCK OF COTTON IN LIVERPOOL.

TRADE OF ROXBURY, MASS.

THE harbor master of the city of Roxbury makes the following statement of the commercial trade of that city during the year 1861 :

	<i>Imports.</i>	<i>Value.</i>
Timber,.....	2,365,397 feet.	\$24,261
Coal,.....	20,133 tons.	100,665
Wood,.....	1,861 cords.	9,395
Hay,.....	275 tons.	4,400
Bricks,.....	1,174,000	5,876
Iron,.....	200 tons.	4,400
Edgestones,.....	12,825 feet.	3,847
Lime,.....	9,710 casks.	6,311
Bone,.....	250 tons.	3,000
Other articles,.....	.....	5,113

\$167,172

Phosphate of lime exported, 150 tons,..... 3,000

The number of vessels employed was 280.

The city paid, during the year 1861, \$47,483 34 for repairing streets and sidewalks.

THE NEW-YORK CITY TOBACCO TRADE.

There is a very general impression that the tobacco trade of this city is seriously affected by the rebellion in the Southern States. Such, however, is not the case. There has been a considerable advance in Virginia manufactured (plug) tobacco, and other tobaccos are held to some extent just now at speculative prices. There is an abundant supply in market at present, nearly as much, perhaps, as is usual at this season of the year. On the first of May the total number of hogsheads in the city was 12,180, of which 911 were Virginia; and on the first of this month there were 21,721 hogsheads on hand, 650 of which were Virginia and North Carolina tobacco.

There will be a very small tobacco crop in Virginia this year, and that of Kentucky will not be so large as usual. So far as this city is concerned, there will be no tobacco received from Virginia, as what little is manufactured will be demanded for home consumption at the South. Plug tobacco has consequently advanced, according to grades, from sixteen to forty or fifty cents per pound, and will advance still more. This kind of tobacco can be manufactured here without difficulty, and those who use the article need not fear a tobacco famine.

COMMERCE OF PORTLAND.

The number of foreign arrivals at Portland, for the month of November, was sixty-eight; comprising three steamships, six ships, ten barks, fourteen brigs, thirty-five schooners. There were twenty-three dutiable and forty-five free cargoes. The following is a comparative statement of the commerce of Portland for the month of November, 1860 and 1861, as it appears on the books of the custom-house:

IMPORTS.

	1861.	1860.
Dutiable, entered for consumption,.....	\$ 44,775	\$ 7,800
“ warehoused,.....	43,302	39,302
Free, (exclusive of specie and bullion,).....	36,680	18,626
Specie and bullion,.....	25,168	
Total imports,.....	\$ 149,925	\$ 65,728

EXPORTS.

Domestic merchandise,.....	\$ 163,107	\$ 107,529
Foreign “ dutiable,.....	1,099	5,411
“ “ free,.....	62,838	8,462
Total exports,.....	\$ 227,044	\$ 121,402
Merchandise withdrawn from warehouse for consumption,.....	25,226	23,372

COMMERCE OF MONTREAL.

The clearances of sea-going craft from the port of Montreal, for the season of 1861, showed 494 vessels, representing 250,281 tons, against 229 vessels, of 116,748 tons, for 1860. The principal ports to which produce was exported, were:

	1860.			1861.	
	Vessels.	Tons.		Vessels.	Tons.
Liverpool,.....	73	68,067	....	146	126,326
Glasgow,.....	34	22,097	....	68	45,883
London,.....	19	7,770	....	57	27,551
Gloucester,.....	14	4,222	....	20	7,686
Bristol,.....	8	2,392	....	20	8,532

Should a war occur between England and the United States, a serious retrogression would take place in the shipments to and from that port.

EXPORT OF SEWING-MACHINES.

The trade in sewing-machines already ranks among the most important of our national industries. For some time machine-sewing has, in this country, almost superseded the ordinary use of the needle in the manufacture of garments; but other countries are only just beginning to adopt the economizing invention. Certain of our enterprising manufacturers of machines have recently introduced their productions into the principal

cities of Europe, and the result has been quite an important demand for the American machines. The machines made here are cheaper, more handsome, and more complete, than those of English makers, and the probability seems to be that the Yankee machine will defeat the English one, even on English ground. The following statement of the export of machines from one port, for two months, shows the importance that this branch of manufacture is assuming:

EXPORT OF SEWING-MACHINES FROM NEW-YORK, FROM AUGUST 1ST TO OCTOBER 1ST, 1861.

Destination.	Quantity.	Value.	Destination.	Quantity.	Value.
Liverpool,.....	546	\$ 20,528	London,.....	8	\$ 612
New-Grenada,.....	168	8,368	Cadiz,.....	3	112
Brazil,.....	114	10,553	British West Indies,.	3	201
Chili,.....	106	5,537	Venezuela,.....	3	150
Havre,.....	71	6,888	Constantinople,.....	9	250
Hamburgh,.....	87	3,772	Africa,.....	2	91
Cuba,.....	45	2,888	China,.....	1	73
Mexico,.....	27	1,343	Leghorn,.....	1	100
Argentine Republic,.	22	941	Bremen,.....	1	45
Cisplatine Republic,.	22	802			
Porto-Rico,.....	18	445	Total,.....	1,268	\$ 64,149
Rotterdam,.....	11	450			

The above is from the *United States Economist*. Of the machines, WHEELER & WILSON's comprise a large majority.

THE TRADE OF THE LAKES.

The quantity of grain received here during the 253 days of navigation, is immense, as the figures will attest, and is divided as follows:

Flour, barrels,.....	2,135,308
Wheat, bushels,.....	26,683,237
Corn, ".....	20,986,450
Oats, ".....	1,801,240
Rye, ".....	356,370
Barley, ".....	282,350

50,109,647

Reducing flour to wheat would give,.... 10,766,540

Making a total of..... 60,876,187

Add to this the flour and grain received during the year by rail-road, and the grand total for 1861 will be over *sixty-two millions* of bushels! No port in the world ever saw the equal of this.

To elevate and discharge this grain, we have seventeen elevators, with capacity of storage varying from 120,000 to 600,000 bushels, and an aggregate of 3,500,000 bushels. Each of these can elevate from a vessel 4,000 bushels per hour. Three new ones, now in process of erection, will give us, next year, storage room for 4,000,000 bushels.

The estimated amount of flour and grain at all the Lake ports west of this State, for the season of 1861, is 113,000,000 bushels; of which

there has been received at Buffalo, 62,000,000 bushels; at Dunkirk, 3,500,000; at Oswego, 18,000,000; at Ogdensburgh, 3,500,000; at Montreal, 15,000,000; making a grand total of *one hundred and two millions bushels* sent forward from the granaries of the West.

The quantity in store here is 1,500,000; Chicago, 3,500,000; Milwaukee, 1,500,000; all other Lake ports, about 3,000,000 bushels. Total now in store, say 9,500,000 bushels.—*Buffalo paper.*

CONSUMPTION OF WINE UNDER THE REDUCED DUTIES.

From official statements, just made up, it appears that, although the consumption of wine since the reduction of the duties may not have met the sanguine anticipations of the early advocates of that measure, it has still shown an increase of sufficient magnitude to demonstrate the impolicy of the previous almost prohibitory rates. It is also to be remarked, that the correctness of the arguments originally used, as to the extent to which wine would be taken into use if the duty were lowered to 1s. per gallon, has not yet been fully tried, the alcoholic test having acted most injuriously upon the trade, not only by the uncertainties and vexations inseparable from it, but also by causing the duty to be as high as 2s. 5d. on nearly all the wines imported as suitable for this country. The consumption of imported wines of all kinds in the United Kingdom, in the eight months from the 1st of January to the 31st of August last, has been 7,667,894 gallons. This shows an increase of 2,201,959 gallons, or 40 per cent., over the same period of last year, and of 2,856,877 gallons, or 60 per cent., over the same period of 1859. White wine is still more largely consumed than red, the proportions being 3,621,197 gallons of red, and 4,046,697 gallons of white; but the tendency of late has been so much in favor of red descriptions, that they seem likely soon to obtain a preponderance. Thus, while the consumption of red increased last year 65 per cent., the increase in that of white was only 24 per cent. With regard to the rates of duty paid under the alcoholic scale, it appears that only 10½ per cent. of the total quantity came in at the shilling duty; about 4¼ per cent. came in at 1s. 9d., 83½ per cent. at 2s. 5d., and 1¾ per cent. at 2s. 11d. The proportion imported in bottles, and which is included in the 2s. 5d. duty, was about 9½ per cent. Last year the importations of wine, in anticipation of the reduction of duties, were extremely heavy, and greatly in excess of the consumption. This year the importations and consumption have very nearly gone hand in hand, the arrivals having been 7,844,505 gallons, and the deliveries 7,667,894 gallons. The arrival of French and Portuguese descriptions have been less than the consumption, but those of Spanish have been much in excess of it.—*Travers' Circular.*

THE UNPRODUCTIVE LABOR OF EUROPE.

Some correct statistics have been collected respecting the number of men employed in the armies of Europe, and it is really almost enough to make one despair of the progress of mankind to find that something like four millions of men, at the very lowest computation, are under arms, either for protection or the cutting of throats, as the case may be.

Here is the list: Army of Austria, 738,344; Prussia, 719,092; Russia, 850,000; France, 626,000; Great Britain and India, 534,827; Denmark, Sweden, Spain, Portugal and Italy, 303,497; total, 3,771,760. The cost of maintaining, clothing and paying these men, at the low average of £40 per head, is £150,000,000 per annum. But the loss is not to be measured by this sum, enormous as it is; for we must also reckon what would be gained were this mass of labor productive instead of unproductive. The labor of 3,771,760 able-bodied men cannot be calculated as producing less than £120,000,000 per annum; so that virtually between the cost of their maintenance and what they ought to produce, were their labor utilized, there is a difference of £300,000,000 a year! We are quite sure that this sum is rather under than over the mark. The worst feature of all this is, that we can see no termination to this expenditure. Since the break-down of popular institutions in America, and the outbreak of the savage war which the Republicans and Democrats of that country are waging against each other, we may turn in vain for consolation from the Old to the New World.—*Money Market Review*.

THE SHIP-LOAD FOR NORTH CAROLINA.

The relief-ship, the schooner E. SHEDDON, left this port for North Carolina in December, freighted with provisions, clothing and other gifts for the loyal people of that State. The relief committee have purchased, or obtained by direct donation, 5,000 bushels of corn, 135 bbls. of meal, 150 bbls. of bread, 82 bbls. of pork, 200 sacks of salt, several hogsheads of molasses, large quantities of hams, bacon and tongues, and other articles of food, enough, it is estimated, to feed the loyal North Carolinians for two or three months. The supply of clothing consisted of blankets, shawls, ready-made garments and stout shoes, for men, women and children, all selected with particular reference to comfort and durability. Strong and warm, if not ornamental, jackets and sacks can be made from the 2,000 gunny bags which hold a portion of the provisions. The entire amount of money collected and invested in these charitable offerings was \$9,300. The value of other miscellaneous donations was not less than \$3,000. The schooner was crammed to her utmost capacity. The gifts will be distributed under the immediate direction of Mr. Dow, who is sole authorized agent of the committee for the purpose.

GOVERNMENT SALE OF SEA ISLAND COTTON.

The seventy-nine bales of Sea Island cotton brought from Port Royal were sold at auction, January 10th, under the direction of Assistant Quartermaster-General D. D. TOMPKINS. The bales were lying about in the storehouse Nos. 65 and 67 Watts-street, where fifty or sixty cotton brokers, commission merchants and tradesmen convened, at 12 o'clock. After some little time spent in examining the article, Mr. DANIEL H. BURDETT, the auctioneer, mounted a bale, and announcing that the cotton would be sold for cash, invited an offer for the first lot of five bales, 1,435 pounds. The bidding commenced at 40 cents, quickly went up to 57, and then more slowly to 63 cents per pound, at which price it was knocked down to TRUESDELL & GREEN. Lot No. 2, nine bales, 2,765

pounds, was secured by the same buyers, at 56½ cents. Lots 3 to 7 inclusive, forty-six bales, 15,206 pounds, were taken by W. LATTEMAYER, at 62½. Lot 8, five bales, 1,566 pounds, was knocked down to TRUESDELL & GREEN, at 56½. Lot 9, unmerchantable short staple, twelve bales, 4,043 pounds, went to Mr. DEXTER, at 27. Lot 10, unmerchantable short staple, two bales, 697 pounds, was sold to F. C. CROSS, at 18 cents. The proceeds of the entire sale were \$14,071 98½. The bidding throughout was not particularly spirited, although fair prices were reached, and the contest was limited to half a dozen merchants. As soon as Mr. BURDETT dismounted from his *impromptu* stand, another gentleman claimed the attention of the audience, and exhibited a miniature bale of Sea Island cotton, ginned by his machine. He distributed the bale among the bystanders, some of whom filled the vacancy in their beavers with a pound or two of the article, and departed, expressing their entire satisfaction as to the utility of the machine.

TIDE-WATER RECEIPTS.

The quantity of flour, wheat, corn and barley left at tide-water during the month of December, in the years 1860 and 1861, is as follows:

	Flour. bbls.	Wheat. bush.	Corn. bush.	Barley. bush.
1860,.....	15,102 ..	174,117 ..	75,794 ..	66,618
1861,.....	78,404 ..	1,137,577 ..	1,185,113 ..	199,735
Increase,.....	63,302 ..	963,460 ..	1,109,319 ..	133,117

The aggregate quantity of the same articles left at tide-water, from the commencement to the close of navigation, during the years 1860 and 1861, is as follows:

	Flour. bbls.	Wheat. bush.	Corn. bush.	Barley. bush.
1860,.....	1,149,100 ..	17,176,000 ..	14,155,473 ..	2,967,576
1861,.....	1,493,238 ..	29,886,637 ..	23,342,334 ..	2,235,850
Increase,.....	344,138 ..	12,710,637 ..	9,186,861 ..	....
Decrease,.....	.... ..	.... ..	.... ..	731,726

By reducing the wheat to flour, the quantity of the latter left at tide-water this year, compared with the corresponding period of last year, shows a gain of 2,886,265 bbls. of flour. The following comparative table shows the quantity of some of the principal articles of produce at tide-water, from the commencement to the close of navigation, in the years indicated:

	1859. April 15.	1860. April 25.	1861. May 1.
Canal open,.....	April 15. ..	April 25. ..	May 1.
Flour,.....	bbls. 870,555 ..	1,149,100 ..	1,493,238
Wheat,.....	bush. 5,105,100 ..	17,176,000 ..	29,886,637
Corn,.....	" 2,463,921 ..	14,155,472 ..	23,342,334
Barley,.....	" 3,261,958 ..	2,967,576 ..	2,235,850
Oats,.....	" 6,089,750 ..	6,490,917 ..	5,978,388
Rye,.....	" 362,837 ..	332,049 ..	832,792
Beef,.....	bbls. 38,826 ..	11,295 ..	28,431
Pork,.....	" 37,906 ..	7,187 ..	9,842
Bacon,.....	lbs. 1,921,670 ..	458,464 ..	638,600
Butter,.....	" 3,534,000 ..	2,389,653 ..	4,067,893
Lard,.....	" 4,016,000 ..	1,017,985 ..	1,320,093
Cheese,.....	" 12,338,000 ..	12,039,542 ..	10,474,005
Wool,.....	" 2,230,000 ..	2,035,679 ..	728,483

THE STOCK OF COTTON.

The stock of cotton at Liverpool is well-maintained, although it has been gradually falling this month. The monthly variation since the commencement of the second half of the year has been as follows :

	1861. bales.	1860. bales.	1861. bales.	1860. bales.
July 5,.....	1,108,300 ..	1,298,490	Nov. 1,.....	588,750 .. 667,980
Aug. 2,.....	1,019,990 ..	1,241,370	Dec. 6,.....	606,810 .. 579,620
Sept. 6,.....	886,680 ..	1,022,370	“ 13,.....	596,950 .. 581,420
Oct. 4,.....	712,830 ..	834,650	“ 20,.....	581,460 .. 539,460

The large receipts of Surat, and the diminution in consumption occasioned by the introduction of short time in the manufacturing districts, have reversed the relative position of the stock this year, as compared with 1860, although in July it was considerably below last year's mark. The last weekly analysis of the stock showed that it was made up as follows : American, 1861, 230,710 bales ; 1860, 405,150 bales. Surat, 1861, 303,050 bales ; 1860, 94,960 bales. Brazil, 1861, 28,340 bales ; 1860, 12,990 bales. Egyptian, 1861, 16,560 bales ; 1860, 25,520 bales. West Indian, 1861, 2,800 bales ; 1860, 840 bales.—*Times*.

BRITISH COMMERCE AND THE HUDSON'S BAY TERRITORY.

At the Town Hall, Manchester, Captain KENNEDY (the commander of the PRINCE ALBERT, on Lady FRANKLIN's private expedition to the Arctic regions, in search of Sir JOHN FRANKLIN) addressed a meeting in the mayor's parlor, explaining his proposed mission to the Red River district, and giving various interesting particulars relative to the condition of the country and its aborigines.

Capt. KENNEDY said, he had first to speak of the territory which had so long been monopolized by the Hudson's Bay Company ; of the condition of the aborigines of British North America ; and of the commercial aspects and advantages of this territory. The Hudson's Bay Company claimed a chartered and a licensed territory. The chartered territory was that washed by the rivers falling into the Hudson's Bay. The licensed territory was usually given for twenty-one years at a time for exclusive trade by the company. Thus a large tract of country had been held exclusively by this company for two hundred years, and during that time, as shown in the examinations taken four years ago by a select committee of the House of Commons, they had drawn from that country twenty millions sterling. The chartered territory and the licensed territory were often confounded. The former, as the company claimed it, was held in perpetuity. The licensed territory, as he had already said, was only held for periods of 21 years. The license was withheld from the company in 1859, and was now open to any one who chose to go into it. The charter had not been subjected to any judicial tribunal, but Mr. GLADSTONE had pronounced it not to be worth the parchment upon which it was written. The charter was given to the company on the terms that they were to have an exclusive right of trade over territory not already in the hands of Christian princes. At that time the French were colonizing Canada, and 45 years previously to this, a charter was given to the Quebec Fur Company, embracing the entire space from the Canadian

lakes to the Arctic Sea, and onwards to the Pacific. On this ground alone the charter of the Hudson's Bay Company was null and void; but in addition to that an act of Parliament was passed in 1690, 50 years after the original charter of CHARLES II., which gave express permission to the Hudson's Bay Company to exercise exclusive rights over the country for seven years only from that date; that was from 1690 to 1697. Since that time there had been no act of Parliament giving the company exclusive powers. So that there was no law preventing the country being opened for general trade. The government also had sent out troops with sealed instructions, and he drew the inference that the object was to protect British interests, the chartered and licensed rights of the company being considered at an end. The Americans were now going through the country, by way of the Mississippi to the Red River of the North, with which they communicated by means of steamers over Lake Winnipeg, and then by wagons over the prairies. The valley of the Saskatchewan was represented by those who had passed a lifetime there as the most favorable for agricultural purposes of any in North America. The best proof of the fertility of the valley was the vast number of buffaloes roaming along the banks of the rivers through the entire valley. These animals could be turned to very valuable purposes of trade, if the means were only provided for bringing them to market. Not only were they valuable for their hide and tallow, but they made an admirable article of food for voyaging purposes, which was not only more palatable and nutritious than the salt beef used by the sailors, but was capable of compression into a small compact bulk. While this territory occupied an area larger than Europe, it also embraced the same variety of resources and means of wealth.

Sir GEORGE SIMPSON, in the narrative of his overland journey, gave as an instance of the fertility of the soil, that wheat crops had been raised for 20 years in succession from the same fields without the application of manure, and rich crops being still obtained at the end of that period. He knew a man who, out of 11 bushels had obtained 600 on the banks of the Red River; and these fertile prairies extended 400 miles north and south, and perhaps 600 or 800 east and west, all capable of being turned to valuable agricultural purposes and the rearing of cattle and sheep. As to sheep, there was ample evidence that they would thrive. No steps had been taken to rear them in large numbers; but the Scotch families had introduced enough to furnish themselves with the necessary supply of wool; and on the Rocky Mountains there was a species of sheep, the wool of which (as might be seen from specimens in the British Museum) was the finest in the world. If this was the case on the elevated plateau of the Rocky Mountains, what must they expect from pastures which afforded such an ample supply for multitudes of buffaloes both in summer and winter? As to the minerals of the country, on the western portion there was a vast salt basin, in which a great variety of the family of salts was to be found. There was also a vast bed of coal, which extended for many miles along the banks of the valley of the Saskatchewan, and was used by the blacksmiths in the service of the Hudson's Bay Company. There was also a large quantity of mineral tar; and gold was found there, though perhaps not of equal value to that found in British Columbia. Vancouver's Island had been styled the Madeira of the Pacific. This was true of the country and climate from the seaboard to the Rocky Moun-

tains and for a considerable distance northward. The finest forests to be found in the world flourished in this country. He has seen cargoes of the timber at the Isle of Wight, and the Messrs. WHITE, of Cowes, who might be considered standard ship-builders, said they derived from that country the finest spars ever seen. Sir BULWER LYTTON, when Colonial Secretary, regarded the country with very much more interest than had been manifested since he left the colonial office. He offered £50,000 annually to encourage the conveyance of mails to British Columbia by the Red River route rather than by Panama. His (Captain KENNEDY'S) opinion was, that the best line of telegraphic communication between this country and America would be by way of Behring's Straits. The quantity of sea over which the telegraph would pass would in no case exceed 60 or 70 miles.—*From the Manchester Guardian.*

LUMBER TRADE OF ALBANY.

The following tables, showing the lumber trade of Albany for the last twelve years, are from the *Albany Journal*:

RECEIPTS DURING THE YEAR NAMED.

	<i>Boards and Scantling, ft.</i>	<i>Shingles, M.</i>	<i>Timber, C. feet.</i>	<i>Staves, lbs.</i>
1850,.....	216,791,800	34,226	28,832	150,515,280
1851,.....	260,238,003	34,136	110,200	115,087,290
1852,.....	317,135,620	31,636	201,714	107,961,289
1853,.....	393,726,073	27,586	19,916	118,066,750
1854,.....	311,571,151	24,003	28,909	135,805,091
1855,.....	245,921,652	57,210	24,104	140,255,285
1856,.....	223,345,545	36,899	14,539	102,548,492
1857,.....	180,697,629	70,004	85,104	153,264,620
1858,.....	267,408,411	31,823	119,497	135,011,817
1859,.....	291,771,762	48,756	70,381	114,540,503
1860,.....	301,022,600	41,222	46,888	147,485,369
1861,.....	162,952,527	31,782	44,754	116,784,471

VALUATION OF THE RECEIPTS DURING THE YEARS NAMED.

	<i>Bds. & Scantling.</i>	<i>Shingles.</i>	<i>Timber.</i>	<i>Staves.</i>
1850,...	\$ 3,251,878	\$ 119,791	\$ 4,325	\$ 677,319
1851,...	4,119,568	121,524	13,010	546,655
1852,...	5,495,960	110,726	52,509	507,418
1853,...	6,299,617	99,585	3,386	569,600
1854,...	4,985,139	86,981	6,649	611,123
1855,...	4,426,589	228,840	4,854	631,149
1856,...	3,573,529	129,147	2,616	461,468
1857,...	2,881,560	248,515	15,218	689,691
1858,...	4,412,205	111,283	20,314	540,047
1859,...	4,887,177	170,646	11,965	458,282
1860,...	4,042,128	144,277	7,971	504,942
1861,...	2,729,454	111,237	7,697	575,138

RAIL-ROAD, CANAL AND TELEGRAPH STATISTICS.

I. RAIL-ROADS IN PERU. II. RUSSIAN RAILWAYS. III. BRIDGES OVER THE THAMES.
IV. WARD'S TELEGRAPH SIGNALS.

RAIL-ROADS IN PERU.

IN the Republic of Peru there are only three rail-roads, viz.: the Lima and Callao, the Lima and Chorillos, and the Tacna and Arica, having a total running distance of $56\frac{1}{2}$ miles.

Rail-Road from Lima to Callao.—This line, between the capital and the port of Callao, $8\frac{1}{2}$ miles long, was inaugurated April 5th, 1850. It cost about \$550,000. The principal owner, SENOR DON PEDRO CANDAMA, has the propriety for 99 years, and the exclusive privilege for 25 years. His contract with the government is one of the most advantageous which is known. Six trains run each way daily, and on the day the mail steamer sails there is always an extra train. The ascending grade averages about 60 feet to the mile, and the cars from Lima to Callao come down almost by their own gravity, with but little aid from the engine. The first locomotive ever built in Peru has recently been put in use upon this road.

The products of this rail-road reached more than \$255,000 annually, in five years after its inauguration.

PRODUCT OF THE LIMA AND CALLAO RAIL-ROAD, FROM APRIL 5 TO NOV. 30, 1860.

Years.	Passengers.	Tickets.	Freight.	Total Rec'ts.
1851,...	296,940 ..	\$ 100,773 ..	\$ 3,652 ..	\$ 104,426
1852,...	455,430 ..	161,156 ..	9,389 ..	170,546
1853,...	577,550 ..	192,507 ..	20,685 ..	213,193
1854,...	593,720 ..	197,906 ..	25,636 ..	223,542
1855,...	688,530 ..	229,507 ..	41,197 ..	270,705
1856,...	617,220 ..	205,738 ..	59,384 ..	265,123
1857,...	676,501 ..	241,164 ..	77,674 ..	318,839
1858,...	677,573 ..	243,949 ..	86,042 ..	329,991
1859,...	659,103 ..	234,795 ..	97,737 ..	332,532
1860,...	647,526 ..	230,869 ..	80,943 ..	311,812
Total, .6,100,143 ..	\$ 2,038,368 ..	\$ 502,344 ..	\$ 2,540,713	

In the space of ten years this rail-road has conveyed 6,100,143 passengers, or more than three times the population of the republic.

A GIGANTIC CANAL.

We understand that parties are now in Washington, representing large European and American interests, urging upon government the necessity

of constructing a ship canal between Lake Erie and Lake Michigan. They look to the State of New-York to widen and deepen its great canal, and to the State of Illinois, to enlarge its canal, so that vessels may be laden, according to their theory, nine months of the year on the Mississippi and discharged on the Hudson. It is asserted, that by the time the canal could be completed, should the government enter at once upon the project, the productions of the West would swell vastly beyond their present dimensions, and give to the country great additional resources for an exchange of products for the staples and manufactures of Europe.

The canal between the two points would be about 160 miles long; the Illinois canal is 100 miles; the connection with the Mississippi River would be at Peru, the terminus of the Illinois Canal, by way of the Illinois River, which is very deep and broad nearly its whole length.

This new outlet is called for partly by the conviction, that the Southern rebellion has destroyed the commerce of the lower Mississippi and New-Orleans beyond a hope of redemption, and partly to prevent a monopoly of freight which the western road seems to impose.

RUSSIAN RAILWAYS.

From the report of the council of administration of the Great Russian Railway, recently presented to a general meeting of that widely-scattered proprietary, it appears, that on January 27th, 1860, the section from Pskow to Ostrow, extending over 49 verstes, was opened for traffic; and on November 8th, 191 verstes more were completed, making the length finished upon the Varsovian line 497 verstes. On 11th April last, the branch from Kowno to the Prussian frontier, 81 verstes in length, was finished; and on 14th June, the section from Moscow to Vladimir was executed, so that the company has now 756 verstes in full working. At the end of the current year, the entire line from St. Petersburg to the Prussian frontier will be opened for public traffic, and so unite the capital of the empire to the other great lines of Continental Europe. Thus, by next spring, the undertaking achieved will comprise 1,614 verstes, or 1,722 kilometres, (a kilometre, we beg to remind the reader, is 0.62 mile English,) executed in five years, being at the rate of 344 kilometres per annum. In France, the average length of line constructed by the Lyons Mediterranean has been $107\frac{1}{2}$ kilometres per annum; by the Southern, 105; by the Eastern, $99\frac{1}{2}$, so that the united efforts of the three great French companies have not equalled what has been achieved by the Great Russian, in presence of a climate admitting only about half the number of working days enjoyed by the West of Europe. In Canada again, observes the Russian administration, the Grand Trunk system was only executed at the rate of 225 kilometres per annum, to say nothing of the Victoria Bridge, which was not completed till a year and a half had elapsed after the opening of the remainder of the undertaking; while in British India eight companies, organized for the execution of distinct lines, extending altogether over 8,000 kilometres, have at present, after struggling on for ten years, only executed a fifth of their contemplated task, or about 1,900 kilometres.

The original estimates, which served as a basis of the concession

granted by the government, have been exceeded; and this is attributed to the rapid and unforeseen advance in the price of labor, the fall of the course of exchange, the depreciation of the rouble, the sacrifices necessary for supplying the absence of local resources, &c. Deducting from the outlay the charges for interest and exchange, the total expenses incurred for rolling stock, construction and material of way, and charges for management, amounted, in round figures, to 129,000,000 roubles, or 64,000 roubles per verste. To this must be added 18,000,000 roubles expended by the State on the Varsovian line, making the total cost of the 1,614 verstes 137,500,000 roubles, or 85,000 roubles per verste; or, in English money and measures, about £16,500 per mile; a tolerable sum, considering the nature of much of the ground traversed. The administration of the company comforts the shareholders, by stating that the average cost of the French lines (calculating the value of the rouble at 3f. 60c.) was 111,566 per verste; of the Dutch lines, 85,281 roubles per verste; of the Belgium State lines, 98,095 roubles per verste; of the line from Berlin to Potsdam, Magdebourg, 95,828 roubles per verste; on the Cologne Minden, 96,471 roubles per verste; on the Rhenish lines, 101,954 roubles per verste; and on the Aix la Chapelle, Maestricht and Hasselt line, 92,205 roubles per verste.

NEW IRON BRIDGE OVER THE THAMES.

The London *Engineer* gives an account of a new proposed bridge (the Blackfriars) over the Thames, and has some reflections upon the general subject of iron arched bridges, of which we give an abstract. The whole design of the new bridge is represented as of impressive boldness and magnificence; built of mixed granite and iron, but so arranged in its architectural features, as to be most graceful in outline, though enormously massive in all its details. It consists of three arches, the centre one being of the gigantic span of 280 feet. The two side arches will be 220 feet span, each. From the springing of the largest arch to the crown will only be a rise of 22 feet. The spandrels of the outer rib on each side will be closed, but filled up with figures in bas-relief, and rich, ornamental scroll-work. The cornice beneath the parapet is of exceedingly bold and handsome design, with an iron parapet above. The piers, however, form the most massive and noble-looking feature of the whole. These will be four in number, all of granite, and of immense size, width and depth. Each, on its extremity, will be surmounted with a column of polished red granite, for which, in size and massiveness, we must look for parallels among the rock-hewn temples of Egypt. They will be columns, 40 feet in height, 23 feet in diameter at base and capital, and no less than 18 feet diameter in the column, and, though built hollow, will weigh upwards of 500 tons. Their capitals will reach to the summit of the bridge, and it is intended hereafter to surmount them with colossal groups of statuary. The whole structure will only be a few feet longer than the present bridge, but its width will be nearly double, viz.: 76 feet against 42. There will be two footways of 14 feet width, and two tramways of 8½ feet each. These will be in the centre of the bridge, leaving two roadways of 16 feet each for the light traffic and omnibuses. The whole area of the road and footway will be nearly 78,000 feet. The

cost of the new bridge is estimated at from £245,000 to £250,000; which is at the rate of less than £3 6s. a foot, or, size for size, nearly half the price of the old one.

The following table shows the length, area and cost of each of the metropolitan bridges:

Bridges.	Length.	Width.	Area.	Cost.	Cost per square foot.		
	Feet.	Ft. in.	Feet.	£	£	s.	d.
London,.....	904	53 6	47,912	542,150	11	6	0
Southwark,.....	800	42 6	34,000	384,000	11	5	10
Blackfriars,.....	995	42 0	41,790	157,840	3	15	6
Waterloo,.....	1,380	41 6	51,270	579,915	10	0	0
Hungerford,.....	1,356	13 4	20,480	98,760	4	16	0
Westminster, (old),...	1,160	43 0	49,880	389,500	7	16	0
Vauxhall,.....	840	36 2	30,380	300,000	9	10	0
Chelsea,.....	922	45 0	41,490	88,000	2	5	0
Westminster, (new),..	990	85 0	80,000	estim'd.	3	5	0
Blackfriars, (new),...	980	76 0	77,000	245,000	3	5	0

The widest arch of which any authentic record exists, was that standing, in 1390, over the Adda, at Trezza, in Italy. This was a nearly semi-circular granite arch, of 251 feet span. It was subsequently purposely destroyed.

The next widest is the central iron arch of Southwark bridge, of 240 feet span and 24 feet rise.

The next is the arch of the Sunderland bridge at Wearmouth, 236 feet span; the abutments retreating, however, 2 feet on each side, so as to give a clear opening of 240 feet.

The next is a granite arch of 224 feet clear span on the line of the Washington aqueduct, United States.

The side arches of Southwark bridge have a span of 210 feet each.

The next is the sandstone arch, of 200 feet span and 42 feet rise, over the Dee, at Chester.

The next is the iron arch, now nearly completed, carrying the railway across the Severn at Areley. Span, 200 feet; rise, 20 feet.

The circular arch, built of tufa, at Vielle Brionde, France, has a span of 183½ feet, and a rise of 70½ feet.

The span of the Staines bridge is 181 feet.

The railway viaduct at Ballochmyle, on the line of the Glasgow and Southwestern Railway, has a semi-circular masonry arch of 180 feet span, the largest stone arch yet erected for railway purposes.

The Pimlico Railway bridge has four wrought-iron arches, of 175 feet span, the largest metal arches yet applied for railway purposes, with the exception of the 200 feet span at Areley.

The central span of London bridge is 152 feet wide.

TELFORD'S design, made in 1806, for a cast-iron bridge over the Thames, was for a single arch of 600 feet span and 65 feet rise. RENNIE and Mr. ROBERT STEPHENSON designed cast-iron arched bridges for the Menai Straits of respectively 350 feet and 450 feet span. A wrought-iron arch, designed many years ago by M. CALLIPE, of Paris, was to have a clear span of 656 feet.

WARD'S MARINE TELEGRAPH.

Mr. WM. H. WARD, of Auburn, N. Y., has interested the British Admiralty in a code of night signals invented by him, termed the Ocean Telegraph, which they had tested at Woolwich, England, from the mast-head of ship *Frisgard*, August 9th, when, as it was stated, the lights reflected as signals by this method were distinctly read (or understood) at the distance of two miles. The report then given represented that the committee were apparently satisfied "with the operating with the various red, white and dark shades from the deck of the ship, so as to readily dispatch messages from ship to ship and shore, and the brilliancy of the lights;" also, that "the invention was perfect, except that the weight of the lamps exceeded 30 pounds, which was a slight drawback." Further experiments were ordered. Mr. WARD says:

"The cost for maintaining continuous communications by night does not exceed (for light) one shilling per hour, with lights that will operate in clear weather *ten miles*. So perfect is the arrangement and simple, that good operators can give a column of news per hour with ease. But the letters of the alphabet are 26 in number, (to indicate which takes less than a minute, at long ranges, as we find no difficulty in exceeding that number,) which are subject to innumerable changes, with only the use of two, three and four for a lengthy sentence; that is, by reserving only two letters for indicating a sentence of quite a length, as A., B., indicates 'stocks lower,' while A., C., 'stocks higher,' A., D., 'cotton dull,' A., E., 'grain better,' &c., will give 650 separate significations, each one referring to its proper sentence in the book of sentences for news, &c.

"With the use of three letters for indications or sentences, 15,600 changes are made, and with only four, 358,800 separate distinct indications are effected, which may be divided into classes as follows:

1st class, of only two indications or letters.	
2d " to indicate important sentences, are.....	650
2d " of three-letter indications,.....	15,600
3d " of four-letter indications,.....	358,800

Making a total of..... 375,050

Changes for indicating as many separate distinct sentences or words sufficient for all possible practical purposes, for all time to come; by the use of which, in connection with the said ocean marine telegraph, a steamer's news can be given, by day or night, in ten to twenty minutes, and any extraordinary message can be spelled out in a few minutes more.

"The beauty of all is the cheapness; for a complete set of those lanterns, such as is spoken of in the *Times'* report on the 7th December, is only £20 sterling. The largest, at £50, are for light-houses, and work ten miles. A steamer's set will be £40. What, then, is there in the way of the accomplishment of all that can be desired by the associated press and the public?

"It would afford me much pleasure to receive orders for the Cape Race and other prominent light-houses. Mr. MACIVER and Mr. CUNARD will introduce them on their line (the CUNARD line) of steamers when-

ever the light-houses are supplied. In fact, both these gentlemen have taken a deep interest in bringing it forward before the government and the public."

OVERLAND TELEGRAPH TO INDIA.

The last published part of the Proceedings of the Royal Geographical Society contains Sir HENRY RAWLINSON'S communication on a direct overland telegraph to India, from which we gather a few interesting particulars. A telegraph, 1,314 miles in length, is in operation from Constantinople to Bagdad, being no inconsiderable part of a line which the Turkish government erected at its own cost, intending to carry it on to Bussorah. From the latter place, Sir HENRY RAWLINSON recommends that it should be extended to Teheran, thence to Ispahan, Shiraz and Bunder Abbas, at the head of the Persian Gulf; and from there along the coast, through the territories of the Imaum of Muscat and the Khan of Kelat, to Kurrachi, where the line would meet our Indian telegraph system. "Teheran," as we are informed, "has peculiar advantages as a principal station; first, because a line passing that way would be sure of the favor of the Persian government; and, secondly, because it would there be connected with other lines of telegraphs. An electric communication is already established between Teheran and Tabriz, while Persian telegraphy seems likely to progress, and to connect itself with the Russian system by way of Tiflis, and even with our Scindian frontiers, by way of Herat." The distance from Bagdad to Bunder Abbas would be 1,302 miles; from Bunder Abbas to Kurrachi, 731, making the whole distance from Constantinople to India, 3,351 miles. There is much to be said for an overland telegraph to the far East. It can be more easily repaired than a submarine cable, and it appears that the Arabs are not unfriendly to the presence of English enterprise in the desert in such a form. One of the chiefs said to our consul at Diarbekir, "If in your hands, yes; but if in the hands of the Turks, we should destroy it, looking upon it but as the forerunner of forts and soldiers to coerce us." Should this scheme be accomplished, as we hope it will, London would be able to communicate directly with Calcutta, and we should have a line rivalling that which now stretches all across the great continent of North America, from New-York to San Francisco. We notice in the last news from South Africa that a telegraph line is to be set up from Cape Town to Graham's Town, and that extensions to Natal and Caffraria are talked of.—*English paper.*

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