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HUNT'S

MERCHANTS' MAGAZINE

AND

COMMERCIAL REVIEW.

MARCH, 1860.

Art. I.—REVIEW, HISTORICAL AND CRITICAL, OF THE DIFFERENT SYSTEMS OF SOCIAL PHILOSOPHY:*

OR, INTRODUCTION TO A MORE COMPREHENSIVE SYSTEM.

PART V.

ROMAN SOCIOLOGY—LEADING TRAITS OF THE ROMAN RACE—CICERO'S WORK ON POLITICS, CRITICALLY EXAMINED—HIS WORK ON LAWS REFERRED TO—CRITICAL REMARKS ON ROMAN STATE AFFAIRS, AS ILLUSTRATED IN THEIR EXPERIMENTS IN FUNDAMENTAL SOCIOLOGY, IN THEIR POLITICAL ORGANISM, AND THEIR JURISPRUDENCE RESPECTIVELY.

THE Roman race, which succeeded and supplanted the Grecian in its ascendancy over the Caucasian nations of antiquity, was not distinguished by its attainments in Science, nor by a philosophical spirit. If the Grecians may be styled the Germans of antiquity, as they may, with some propriety, be regarded, the Romans were its Anglo-Saxons.† The Grecians were distinguished in speculation—the Romans in practice. The Grecians designed—the Romans achieved. The Grecians meditated—the Romans acted. Whatsoever was true and really useful, in the theories and speculations of the former, the latter generally availed themselves of, and rendered practically operative, whether in Sociology, war, or the ordinary industrial arts.

* Entered according to an act of Congress, in the year 1859, by Geo. W. & Jno. A. Wood, in the Clerk's Office of the District Court of the United States, for the southern district of New York.

† It may seem unjust to the Anglo-Saxons to compare them to the Romans, in the same connection in which the Romans are spoken of as not a philosophical people. It may be said, that a race which has produced a Bacon, Locke, and Newton, a Watt, Arkwright, and Fitch, to say nothing of Shakespeare and Milton, cannot justly be characterized as deficient in philosophical genius. In fact, as it has been said of an eminent orator, Patrick Henry, by another scarcely less eminent, that "he was Shakespeare and Garrick combined," so it may be said of the Anglo-Saxons, that they are the Greeks and Romans combined—that they blend the philosophical with the practical, the talent for deliberation with the talent for administration. Still, it is the administrative talent, the turn for the practical, that peculiarly distinguishes the Anglo-Saxon, as it is the speculative talent, the turn for the theoretical, that peculiarly distinguishes the German. Germany has never produced a Washington, nor Anglo-Saxondom, a Humboldt. Frederick the Great, was not the equal of Cromwell, and Bacon, on the other hand, was not the equal of Leibnitz. Nor was Locke, in the sphere of the *metaphysical*, comparable to Kant.

The difference between nations, in this respect, is sometimes not less marked than that between individuals. The talent for theorizing, or speculation, is clearly distinguishable from the talent for practice, and, in fact, the two are rarely found combined, in an extraordinary degree, either in individuals or nations. Men of the most distinguished abilities in action, are often deficient in the talent for defining the reasons on which the propriety of their action is grounded. They possess those larger perceptions, which enable them to discern the course of wisdom, but are deficient in those nicer perceptions, which are necessary for detecting its connection with the various links in the chain of causation, and which qualify for the office of theorizing correctly. They see the right more clearly than the reasons for it, and have the talent for displaying wisdom in deeds, when they are deficient in the faculty for displaying it in words.

It is, moreover, worthy of note, concerning this class of men, that they are often quicker to discern the right, and much less likely to be mistaken in relation to it, than those who, when they have managed to hit upon the right, far excel them in the power of reasoning upon it, and illustrating it in language. They have superior power of judgment, and pure reason, but inferior power of ratiocination and comparison. Washington, for example, could not write so able a State paper as Jefferson, nor theorize so clearly or forcibly upon the principles of government. Yet he was as far superior to Jefferson, as a statesman, and in true political sagacity, as he was to his most distinguished military compeers, as a commander of armies. Scipio Africanus could not, most probably, have written so able a treatise on Politics as Aristotle. Yet he was as far superior to Aristotle, as a statesman and practical philosopher, in affairs of government, as Aristotle was superior to him as a speculative statesman and theoretical philosopher.

These general remarks, on the fundamental differences between the talents of individuals, may be adopted as a correct delineation of the leading difference between the Greeks and Romans—the former of whom excelled in the talent for speculation; the latter, in the talent for administration—the one as theoretical; the other, as practical-philosophers. We should commit a very great mistake, therefore, if, on ascertaining that there is but little of especial value in the speculative philosophy of the Romans, either in Sociology or any other science, we should conclude that there is nothing valuable, in relation thereto, to be deduced from their example, or from a critical review of their social system, and more particularly their political institutions.

There is but little valuable in social science to be deduced from the literature or speculative Philosophy of the Romans. In fact, the Romans were not a philosophical people, or a people addicted to speculation upon the fundamental principles of the sciences. They were essentially a war-like people, addicted to statesmanship and military command. The Grecians maintained their ascendancy in the world by arts and Philosophy, the Romans by arms and practical statesmanship. This leading propensity of the Roman nation influenced the conduct of all its citizens, and was conspicuous in its most distinguished men.

The greatest minds of Greece devoted their attention mainly to Philosophy; those of Rome, to war. Julius Cæsar was undoubtedly the greatest intellect that Rome ever produced, if not, indeed, the greatest that humanity ever produced. And so conspicuous was this leading

Roman trait in him, that after conquering the Gauls, and vanquishing the Britons, he turned his victorious legions against the liberties of his own country, and supplanted its republican institutions by a military dictatorship. Nor has he bequeathed to posterity any noteworthy record of his reflections, except his justly renowned *Commentaries*, which are little else than a journal of his military campaigns. The two Scipios were men of great military and political talents, and the two Catos were scarcely less distinguished as statesmen than as practical moralists; yet neither of them has left any written treatises which have survived, at least, to the present times, except the fragmentary remains of the *Origines*, a historical work of the elder Cato, and his discourse on husbandry. Horace, a practical Epicurian philosopher, wrote only poetry, interspersed, though it be, with many profound philosophical remarks, relating chiefly to the conduct of life. Livy, Sallust, and Tacitus wrote only history.

Cicero, indeed, aspired to the character of a teacher in Philosophy, and complained that his countrymen had too much neglected such studies; yet in his political, as well as his moral discourses, he does little more than reproduce the ideas of Grecian philosophers, nor does he always select or give particular prominence to the most profound and valuable of those. Seneca and Antonine were rather scholars in Philosophy, than originators or independent thinkers. Augustus, Hadrian, Constantine, Theodosus, and Justinian were renowned rather as practical statesmen, than as instructors in Philosophy, although subsequent ages will long be indebted to the last two, as were their own times, for the measures which they took to have the vast bulk of Roman jurisprudence codified and systematized, while Papinian, Paulus, Gaius, Ulpian, Modestinus, and Tribonian, were only distinguished as jurists.

Among the Romans, in short, we find good historians, fine poets, eloquent orators, able jurists, distinguished statesmen, and illustrious warriors, but no renowned philosopher—no man distinguished as a teacher in fundamental knowledge, or for his inquiries into the fundamental principles of the sciences. Rome never produced any such men as Aristotle, Plato, or Socrates, nor even as Solon, Thales, or Pythagoras.

The speculative Sociology of the Romans, which survives to the present age, may be all, or nearly all, comprised in the fragmentary remains of Cicero's somewhat renowned treatise on the Republic, and his disquisition on Laws, the former of which, alone, can lay claim to be regarded as anything like a fundamental inquiry in Sociology. The distinguishing trait of the Roman intellect, a propensity for the practical—a proneness to activity, rather than to contemplation—is conspicuous in the very commencement of this treatise of Cicero.* As Plato began his treatise on Politics with a fundamental disquisition on justice, Cicero began his with a disquisition on the dignity and importance of statesmanship, and on the erroneousness of the idea, which had been promulgated by certain Grecian literati, that the practical details of statesmanship were unbecoming the dignity of a philosopher; on which point, assuredly, the Roman had decidedly the advantage of the Grecian, since that wisdom which

* The first few pages of this work, the Republic of Cicero, which has been only recently restored to the world, are supposed to be lost. But it seems probable that the actual commencement, which is lost, related substantially to the same subject, as does the commencement of the remains that have been found, if, indeed, it was not entirely wasted in unprofitable preliminaries, as are the commencements generally of these philosophical dialogues, which Cicero's Republic was, like that of Plato.

teaches by example is, for the most part, greatly to be preferred to that which teaches only by precept.

After the remarks which have been made on the respective leading traits of the Greeks and Romans, it may seem almost superfluous to say that the Romans did not penetrate any more deeply in speculative Sociology than to the region, or, (in geological parlance,) the *strata* of political causes. If even the Grecians, with all their philosophical genius, penetrated so superficially into the Philosophy of Society that they mistook political causes for the most fundamental in Sociology, and failed to discover those great underlying strata of sociological causes upon which political institutions, as well as whatsoever is still less fundamental in human society, repose, as the more recent geological formations repose upon the primary rocks, it is not to be supposed that the Romans, still less that Cicero, who was not, by any means, the most profound of Romans, penetrated deeply enough to make the discovery. If it was the leading idea of the Social Philosophy of the Greeks that the social welfare of mankind is to be sought for fundamentally in political causes, it was the almost exclusive idea of that of the Romans, if, indeed, we may be warranted in judging them, on this score, by the only notable work in speculative Sociology which they have bequeathed to posterity—the disquisition of Cicero, known as his Republic.

This idea was indeed peculiarly consonant with Roman character, owing to their strong predisposition and eminent fitness for the affairs of statesmanship, and it crops out most prominently in this disquisition of Cicero on Politics. It is conspicuous in the following language, which he uses near the beginning of his discourse, while discanting on the dignity and importance of statesmanship:—"For nothing is spoken by philosophers, so far as they speak correctly and justly, which has not been discovered and confirmed by those who have been the founders of the laws of States. For whence comes piety, and from whom has religion been derived? Whence comes law, either that of nations or what is called the civil law? Whence comes justice, faith, equity? Whence modesty, continency, the horror of baseness, the desire of praise and renown? Whence fortitude in labors and perils? Doubtless from those who have instilled some of these moral principles into men by education, and confirmed others by custom, and sanctioned others by laws."*

Here we have a striking exemplification of the superficiality of Ciceronian Philosophy, and doubtless of Roman Philosophy in general, in relation to the phenomena of society, and indeed of human character in general. According to Cicero, it is all the result of *teaching*—the outcome of some *human ordinance* or *precept*. To his view there is nothing more fundamental—nothing original, innate, and which eludes our endeavors clearly to define, or minutely to perceive, tending to mould the character of nations or of individuals. The institutions of society he attributes only to certain "founders of the laws of States." Nay, even the moral principles, which are undoubtedly indigenous to the soul of man, in a healthful state of development, he attributes only to the teachings of certain schoolmasters.

Cicero committed the same error, on this point, that Mitford, a writer of Grecian history in modern times, already alluded to, with much less

* See Cicero's Republic, as translated by C. D. Yonge, book i., chapter 2.

ground of excuse, still more grossly perpetrates. Mitford, in remarking on the institutions of Lycurgus, and glaringly exaggerating the influence which that great lawgiver exerted on the character of the Spartans, gravely asserts that the Spartans not only indulged occasionally in mirth, as Lycurgus had enjoined, but the very kind of mirth which Lycurgus had prescribed, namely, a grave and dignified kind, and plainly intimates that he imagines the Spartans laughed in that kind of way, mainly, if not solely, because Lycurgus had told them they ought to do so.* But Mitford forgets that Lycurgus prescribed this kind of mirth or laughter only because he was himself a Spartan, and like other Spartans was inclined to laugh in that kind of way, and to approve of that kind of laughter, and that, in short, the habit of the Spartans as to laughing, and the precept which Lycurgus gave them in relation thereto, were both fundamentally referable to the same cause, as were, indeed, all the habits of the Spartans, and the precepts of Lycurgus—namely, the *original, inherent, fundamental character of Spartans*, which the laws and precepts of Lycurgus tended only more completely to develop, and more permanently to fix.

In like manner, Cicero, in committing the error of referring the laws of society and the principles of morality to lawgivers and teachers, as their most fundamental and efficient causes, forgets that these lawgivers and these teachers only prescribed the laws, and inculcated the principles, which they may have respectively prescribed or inculcated, because they were themselves men, and, like other men, felt the necessity, and were moved by the propriety, of such laws and principles. He forgets that, if there were not an original predisposition in men to receive these laws and principles, it would be unavailing to prescribe or inculcate them. He forgets, moreover, or fails to perceive, that it is upon the original predisposition and inherent fitness of men, of particular individuals or nations, to receive these laws or principles, that their efficacy depends, far more than upon the clearness and force with which they may be promulgated and enjoined.

In so far as these words of Cicero tend simply to show that a great deal is due to the influence of the founders of the laws of States, and to the teachers in morality, they are entirely unimpeachable for error. Undoubtedly the influence of such men is very important, if not, indeed, indispensable to the development of humanity. It is to a great extent, and indeed mainly, through the instrumentality of great teachers, of great leading minds, as its *immediate*, though not its most *fundamental* cause, nor as its *sole* immediate cause, that mankind at large progress from barbarism to civilization. Carlyle has, in the main, justly observed, that "universal history, the history of what man has accomplished in this world, is, at bottom, the history of the great men who have worked here. They were the leaders of men, these great ones, the modelers, patterns,

* See Mitford's Greece, chapter iv., sec. 3, page 275, Boston edition of 1823. It is true that Mitford cites Polybius as his authority on this point, certainly very high authority. And it is also true, that Polybius does greatly overestimate the influence of Lycurgus, but not to so great an extent as Mitford. Nor need it seem presumptuous in the author of this review, to overrule on this point the authority of so great a philosopher and historian of antiquity as Polybius. It is to be remembered that, with the aid of the critical researches of a Niebuhr, we are at this day better acquainted with the history of Rome, than the Romans themselves even of the Augustan age. Nor should it appear extraordinary that, with the more enlarged ideas of modern times on Sociology, a modern sociologist should be able to correct errors in the sociological reasonings of a philosopher of antiquity, even concerning the institutions of his own day.

and in a wide sense creators, of whatsoever the general mass of men have contrived to do or to attain."*

But these great teachers and leaders of men, though indispensable agents in the work of human development and improvement, are not the sole agents. There lay the great error of Cicero, as of a multitude of reasoners in fundamental Philosophy. He did not duly consider, perhaps was not aware, that there is no such thing as simple *unity*, either in the condition of bodies, or in the manifestation of forces; in short, either in the *statics* or *dynamics* of the universe. He did not duly consider, perhaps was not aware, that all forces, at least all visible or tangible forces, or, to speak more accurately, all forces that are discernable to the eye of human reason, are compound, and clearly resolvable into a *duality*, if not a *triplicity*, or still greater *complexity* of elementary forces. Thus, for example, and by way of illustrating the grand *dual* forces of the universe, it may be remarked that we find in Astronomy the great centripetal and centrifugal forces, and in Sociology, the almost exact correspondences to these, *man* and his *environment*, which keep human society, like the society of the planets, in perpetual revolution, each individual whirling on the *axis* of his own activity, and revolving with all in the *orbit* of the nation, around the central sun of the national destiny, while the nation itself, with the whole family of nations, is moving, like the various solar systems or families of worlds, through the realms of moral space, around some grand center of which, in both cases, human intelligence is alike profoundly ignorant. Thus again, when we come to look at man as abstracted from his environment, we shall find the forces of his own inherent activity, (in so far, indeed, as he can be said to have any inherent activity independent of his environment,) resolvable into the duality of great and little men, or rather of the governors and the governed, the modelers and the modeled, or the men of genius and the men of business.

Carlyle, in his work on Heroes, from which we have already quoted, compares "common languid times," or what he might as well have termed the common bulk of humanity, to "dry dead fuel, waiting for the lightning out of Heaven that shall kindle it." He adds, "The great man with his free force direct out of God's own hand is the lightning."† Assuredly this is a very striking and highly poetical simile, but not so well adapted, perhaps, as some others to the purposes of science. The Chinese philosophers may probably suggest to us a more just simile as to the relative forces of the great leaders of humanity, and the general mass that are acted on by them.

According to Mr. Davis, a distinguished European inquirer into Chinese history and philosophy, the philosophers of that people, or a portion of them, at least, regard the whole universe as pervaded by the grand *dual* principle of *male* and *female*, which Mr. Davis not inaptly styles "a *sexual* system of the universe."‡ This principle is, indeed, distinctly recognized by European philosophers in the vegetable kingdom, as well as the animal; and it is not unreasonable to suppose that it may also be detected in the intellectual kingdom of the universe, as manifested, at least, in the human creation, the genus *homo*.

* See Carlyle's Heroes and Hero Worship, Lecture I., page 1.

† See Carlyle's Heroes and Hero Worship, Lecture i., pages 11-12.

‡ See Davis's China, chapter 12; also the ye-king or mystical book of Chinese Scripture, therein referred to.

In accordance with this idea of Chinese philosophy, the great leaders of humanity, the wise men, the men of genius, or men of more immediate inspiration, from the great creative Divine Source, may be regarded as representing the *male* principle of creation, while the generality of mankind represent the *female*, each designed to perform its appropriate function in the generation of human improvement, and both indispensable thereto. In this sense, may it not be well said, that the wise man, or man of genius, is the great *impregnator* of his times, or of the general mass of mankind? But let it be observed, what Cicero, like many others, failed to consider, that if the times be *barren*, or the general mass of mankind be unimpassioned, unimpressive, the wise man will vainly strive to impregnate them with new ideas.

It is noteworthy, also, in this connection, that the greatest of all moral teachers, he in whom the excellence of every moral system centers, and towards whom all true moral teachers may be said to gravitate, unconsciously though it be to them, as to their great central sun, the divine author of Christianity has clearly and forcibly recognized the truth here sought to be made manifest. For he justly and beautifully compares his own grand gospel to *seed* scattered upon the earth, some of which should fall on stony ground and die; others, in thorny places, where its growth would be checked; while others again, should fall on fruitful soil, and yield abundantly.

This simple and beautiful simile readily admits of conversion into the Chinese idea of the male and female principles. For quite obviously the seed represents the male principle of creation, while the earth, with its prolific womb, is the great mother of all vegetable life. Here, too, in considering the agency of the mother earth, as of the mother woman, in the work of generation and new creation, we cannot fail to note how much depends upon the quality or character of the female or maternal principle. Yet it was precisely this principle which Cicero ignored in his disquisition on the origin of social institutions, and the foundations of social prosperity.

This much, already said, will enable us the more readily to dispose of another observation of Cicero's, of similar import to that just remarked upon. In allusion to the famous remark of Xenocrates, when asked what his disciples were learning, that they were learning "To do of their own accord, what they might be compelled to do by the laws," Cicero, in disparagement of Xenocrates, says, "That citizen, therefore, who obliges all men to those virtuous actions, by the authority of laws and penalties, to which the philosophers can scarcely persuade a few by the force of their eloquence, is certainly to be preferred to the sagest of the doctors who spend their lives in such discussions. For which of their exquisite orations is so admirable as to be entitled to be preferred to a well constituted government, public justice, and good customs."*

Very well said, indeed, for Cicero, and other like superficialists! But Cicero required to be reminded that Xenocrates, in pursuing his noble vocation of instilling into his disciples virtuous principles, (in so far, indeed, as virtuous principles admit of being instilled by education, or any direct human agencies,) was performing, in a moral sense, the office designed to be performed in a physical one by those customs of Sparta

* See Cicero's Republic, book 1., chapter 2.

which aimed at disciplining and invigorating the constitutions of the women, with a view to their being fitted to bring forth a noble offspring; that he was developing and strengthening the *maternal* and *recipient* principle of society, without which the *paternal* and *communicative* principle would vainly strive to beget vitality in any social institutions; that he was providing the *fulcrum*, without which the *lever* of political laws could never act—that, in short, he was preparing the foundation upon which alone the lawgiver could securely build.

Cicero needed indoctrination with the aphorism of the modern Hume, that "all laws are founded in opinion." He should have known that a law promulgated without the sanction of public opinion, to sustain or enforce it, is *brutum fulmen*, and that Xenocrates, in disciplining the minds of the young, was manufacturing public opinion. We should like to see a Cicero, or a Lycurgus, legislating to make a nation of thieves a nation of honest men, by laws against theft.

Assuredly, as Cicero says, a well constituted government, with public justice and good customs, is far more admirable than the most exquisite oration on the excellence of public virtue. But Cicero should have considered, that, in order to have a well constituted government, it is necessary to have a well constituted people standing under it to uphold and sustain it, and that, in order to have such a people, influences more fundamental than political ones are indispensable. It is a great reproach to Cicero that he did not reason more deeply on this point. He had extraordinary opportunities for obtaining a deeper insight into the philosophy of society. Cicero should have known, must have known, that the government of Rome was quite as well constituted, in respect, at least, to mere law in his day, (if not still better,) as it was in the time of Scipio Africanus, the elder, when the public affairs of his country extorted the highest admiration of the wise Polybius. Yet, in point of real welfare and true greatness, how sadly was it changed! And in what consisted the change, except in the character of the people, no longer wise enough to heed the counsels of the wise, and no longer fit to sustain a system of government favorable to the development of lofty character, or any species of public or private virtue. The government of Rome, under which its most illustrious exploits had been achieved, so far from being able, as Cicero's Philosophy would indicate, to make the Romans virtuous in the age of Cicero, being no longer sustained by a virtuous people, was unable to maintain its own position, but gave place to another, better adapted to the altered character of the people. Indeed, what is government but the *complexion* of society? Or what, at least, is the form of government, but the form of the national character encased within it? This remark must be received, however, with some important qualifications, not necessary here to particularize. Speaking, with somewhat more philosophical accuracy, we should rather style government a *growth* of society. Upon this idea, we shall be more easily able to engraft the proper qualifications as to the reactive influence of government on society. But this is not our present purpose.

In reference to the form of government to which, it may be superfluous to add, after the exposition already given of the character of his Social Philosophy, Cicero attaches altogether too much importance, it is a little remarkable how almost exactly he reproduces the idea of Polybius, which is, in fact, substantially that of all the wise men. He rejects the idea of

any of the simple forms of government, and expresses a decided preference for a government *mixed and compounded* of all the three elementary forms,* which, by the way, all governments are, to a greater or less extent, although one of those forms may so far predominate, in many governments, as to give name to the government—a fact, indeed, which it is rather strange that very few, if any, political philosophers have particularly noticed hitherto.

Where, for example, is the government so democratical that it does not, in some of its ramifications, recognize individual superiority, or the one man power? Where, on the other hand, is the government so monarchical that it does not delegate a large part of its nominally monarchical power to subaltern officers; or, in other words, that is not to some extent aristocratical? Nay, where is the government so monarchical or aristocratical that it does not, to some extent, respect the rights and wishes of the people; or, in other words, is not to some extent democratical? Does not the Czar of Russia—nay, the very Sultan of Turkey—stand in awe of his people, strive to appease their discontent in times of popular disturbance, and beware how he trifles with their national prejudices?

It is but a step in advance of the remark just made to add, what seems scarcely ever to be considered, that all governments are, at bottom, pretty much substantially the same, as is the anatomical structure of all the varieties of the different genera of animals, as, for example, of the feline, canine, and bovine races, and that their differences are rather those of outward form, than of fundamental structure, or essential nature.

In commenting on the constitution of Rome, and expressing what he seems to regard as the true theory of its government, Cicero, speaking as usual through one of the interlocutors in his dialogue, makes this noteworthy remark, "If it so happen that the Senate becomes the master of public politics, and if all men defend whatever it decrees, and if all the other orders agree that the commonwealth shall be governed by this superior order, there will arise, from this amalgamation of rights, when the power is in the people, and the authority in the Senate, that modified and harmonious kind of constitution which I have so highly extolled."†

In other words, Cicero would have that kind of government, in which the people only *negatively* rule, and a superior order *positively* rule, or in which a superior order rule, not as of absolute right, but by the permission of the people at large, who, nevertheless, have the power in their hands at any time to destroy or defeat the rule of those, the actual governors of the State. It is worthy of remark, that this is almost precisely the kind of government which is realized in the representative republics of modern times, and which is so strikingly illustrated in the United States of America. The Congress of the United States, and the Legislatures of the several States, in their respective spheres, represent in America, how worthily or unworthily the author of this review does not feel called upon to express any opinion, the superior order, which Cicero wished to possess the actual power of government, while the people have the power in their hands to confirm or reject the measures of *this superior order*, by returning them to the legislative body at the next popular election, or permitting them to stay at home.

* See Cicero's Republic, book ii., chapter 35.

† Cicero's Republic, book iii., chapter 12.

There can be no doubt, from the whole scope of their political writings, that both Cicero and Aristotle would have been greatly captivated with the representative republic system of modern times, which is certainly a vast improvement on the popular assembly system of the republics of antiquity, which seems, however, never to have occurred to their minds. But whether they would have been so well pleased with its practical workings as they might have theoretically imagined, is a question as to which we are left to conjecture, though scarcely with any room for doubt, that in this case, as in others, realization would have brought sad disappointment to hope and fondly cherished theory.

Cicero makes one fundamental remark which is undoubtedly, in a great measure, just, and deserving of consideration, though not very profound or noteworthy in point of sagacity, since its truth is too obvious to escape notice, or admit of doubt, except as to the extent of its application. "Would you but look into the history of former ages," he says, "you might plainly see that such as the chief men of the State have been, such has also been the State in general; and that whatever change of manners took place in the former, the same always followed in the latter."* He adds, "this observation is much more certain than that of Plato, who pretends that a change in the songs of musicians is able to alter the manners of a nation."

This observation of Plato, however, upon which we have already remarked, in considering the Sociology of Greece,† is entitled to much more consideration than Cicero seems to have supposed. That chord in the human heart which puts the soul of man in harmony with the music principle of the universe is one of potential influence, and it rather betrays the superficialist in Philosophy to treat it as of trivial import. National melodies have exerted incalculable influence on national character and destiny. "The Marseilles Hymn" electrified the French nation, and helped wonderfully to inspire it with that great enthusiasm which has rendered France a terror to Europe. The national airs, "Hail Columbia" and "The Star Spangled Banner," have exerted a vast influence in uniting and cementing, in the bonds of federal union, the various States of the American confederacy. And at this moment, when sectional animosity in this great confederacy is so strongly excited by the intemperate agitation of the slavery question, that the wisest men are alarmed for the consequences, nothing would so effectually tend, in so short a time, to revive the sentiments of a common nationality and a common brotherhood, as these grand national airs, stirringly played, by well-trained bands of musicians, on well-selected occasions, before large assemblies of the people in the different sections.

If, on the other hand, at this critical and alarming conjecture, a great stirring melody should appear, giving poetical and musical expression to the popular discontent in either section, but more especially in that which is by far the more excited and more justly exasperated, and putting the sentiment of disloyalty to the Union in harmony with the great musical chord of the human soul, there is too much reason to apprehend that the ligaments which bind together the two sections, though even now still stronger than many thousand hempen cords, would snap with a mighty

* See Cicero's Rep., book iii., chapter 14.

† See part iv. of this review in January Number, 1860, of *Merchants' Magazine*.

noise, and this great confederacy, on which so many high hopes of patriotism and philanthropy throughout the world are centered, would hopelessly go to pieces. Accursed be the pen of poet or musician that would dare devote its energies to such an unholy, sacrilegious purpose !*

These remarks, though predicated on modern examples, will not the less forcibly or justly illustrate the error of Cicero, in disparaging the observation of Plato, a much more profound philosopher than his Roman copyist, (as Cicero was in many things,) as to the influence of music and popular song on the character and destiny of a nation.

After these severe criticisms on the superficiality of Cicero as an inquirer in fundamental Sociology, it is proper and due to that illustrious Roman to remark, that in his work on Laws, (a work posterior to that on fundamental politics,) and as an inquirer into the fundamental principles of jurisprudence, he appears to far greater advantage. This is in entire consistency with the leading traits of Roman intellect in general, as well as of Ciceronian in particular, which was peculiarly adapted to the more immediately practical sciences, of which jurisprudence is one, than to the more peculiarly theoretical, as fundamental Sociology may be regarded, in many of its ramifications, and which had profundity enough to master all the difficulties of the former, but not enough to master all the difficulties or to solve all the problems of the latter.

Accordingly we find Cicero, in his disquisition on Laws, nobly and powerfully combatting the sickly idea, which has found its advocates in all ages, (the present not excepted,) that there is no other foundation for justice than mere political enactments and that whatever is established by the laws of States is, therefore, just. He rightly maintains that justice is more fundamental, and founded in the constitution of man and nature.† Strange it is that with the sagacity clearly and strongly to discern this, Cicero did not also discern that there is something more fundamental than mere human laws or human precepts tending to determine the condition and mould the destiny of human society.

It is also worthy of note that Cicero, in his work on Laws, has given a definition of *law*, meaning thereby political or civil law, which completely embodies the definitions of two of the most distinguished English jurists, Coke and Blackstone, and which must surely have been copied by them, so clearly do they resemble his. Nor does Cicero claim the definition as his own ; for he cites it as a definition that had been given by other "learned men," so remote is the origin of many things supposed to be of a recent origin.

Cicero defines law to be *the highest reason implanted in nature, which prescribes what ought to be done and forbids the contrary.*‡ Coke's definition of law is, that it is the highest reason, commanding what is useful, and prohibiting the contrary. Blackstone's definition is this ; Law (meaning thereby civil law) is a rule of civil action, prescribed by the supreme power of the State, commanding what is right and prohibiting what is wrong.§

* There is this comforting assurance against danger from this source to the American Union. No one who is not considerably gifted as a poet can ever very deeply or extensively touch the great popular heart. But poets are always men of large souls. And no man having a large soul desires a dissolution of the American Union.

† See Cicero on Laws, book 1., chapters 15 and 16.

‡ See Cicero's Laws, book 1., chapter 6.

§ These definitions of Coke and Blackstone the author cites from memory, founded on reading in former years, and it is not deemed important to cite the page or chapter of authors so familiar to many readers of modern times. Should any one wish to consult for himself these definitions of Coke and Blackstone, he may find them near the commencement of their respective commentaries on the Laws of England.

Many other observations might be made, both in commendation and in censure of Cicero, as an inquirer into the philosophy of society, whether in fundamental Sociology or in the principles of mere jurisprudence. But these must suffice for the purposes of this review. It remains that we should take some notice of the Roman constitution, and note some suggestions to be drawn from the political history and practical Sociology of the Romans. These may afford us more instruction than the reasonings of Cicero.

The Roman constitution, in its relation to fundamental Sociology and general Politics, is a theme deserving of more methodical and searching investigation than it can receive here, or has yet received, at least in any extant treatise. The remarks of Polybius in relation thereto, as embodied in his history, are very lucid and instructive, but altogether too partial and restricted in their scope.* Of what Cicero wrote on this topic, in his disquisition on Politics, only fragmentary remains are preserved. Adam Ferguson, in his remarks on the Roman constitution, to be found in his Roman history, has done but little more than copy, almost exactly, the remarks of Polybius, without duly accrediting them to their true original.† Niebuhr's learned disquisition on Roman history, like similar German works, is truly a vast pile of learned straw, from which the laborious student may, with hard work, successfully thrash a few grains of useful knowledge.‡ Adam's Roman antiquities are a rich and valuable mine of information concerning Roman institutions. But the information which it contains is almost totally without method, and that *lucidus ordo*, so indispensable to scientific results, in the treatment of vast themes.

Nor is it contemplated in this review to supply existing wants in this department of general knowledge, nor to attempt anything like a systematic or thorough exposition of the Roman constitution, so far indeed as it is possible for a modern inquirer thoroughly to comprehend it. The author of this review having undertaken the vast enterprise of reducing into method and lucid order the *chaotic* realm of social science, over which indeed lie scattered valuable materials in great profusion but vast confusion, can little afford the time and labor necessary to the subordinate task of systematizing the confused mass of existing information concerning the political institutions of the Romans in particular.

Nor has this review, for its leading aim, any other than that of taking a cursory glance (searching indeed, but not very systematical) at the more prominent theories of human society which have hitherto engaged attention, and the more notable political fabrics which have actually existed, with a view to showing in how great confusion the realm of social science continues to this present time, and how much it needs the systematizing hand of an enlarged constructiveness, and with the further

* See Polybius' General History before referred to, book vi., chapter 2.

† See Ferguson's Rome, book i., chapter 3. Some of the remarks of Dr. Ferguson, however, which are not taken from Polybius, are very just and valuable. Nor is it intended, by any means, by what is said in our text, to disparage the high character which he so justly holds as a reliable and philosophical historian.

‡ That the author is not unsupported by high authority in the view which he has here taken of Niebuhr's work on Roman history, he begs leave to cite the words of Chancellor Kent, which are much of the same import. "Niebuhr's work is so intermixed with true and fabulous story, and he goes so deeply into the 'tangled thickets of the forest,' that it becomes rather difficult to know what is and what is not to be deemed genuine history, amidst his incessant scepticism and complicated narrative." See note to lecture xxiii., part iii. of Kent's commentaries, page 518 of third edition, where he treats of the civil or Roman law.

and incidental view, while inspecting the vast mass of material, the contributions of many of the greatest minds, which strew the ground in this extensive realm of science, of *marking* those blocks of thought which are of special value, and those which ought to be especially rejected by architects who would erect wise and enduring political fabrics.

All that it is proposed to say in this review concerning the practical Sociology of the Romans, may be classified under these three heads, that which relates more especially to fundamental Sociology, that which relates to mere politics, and that which still more particularly relates to mere jurisprudence.

The most noteworthy and suggestive development in Roman Sociology, perhaps, was that which may be regarded as an effort to countervail, by legislation, the great fundamental law, that in Sociology, as in Astronomy, *gravitation is towards the larger body*. It is this law, in pursuance of which, as human society advances in wealth, the rich have a constant tendency to become richer, and the poor poorer, against which ignorant pretenders in social philosophy and would-be social reformers are so often found directing their expedients and fulminating their anathemas, as if they could rail the planets out of their courses, or those bodies of the social universe which in their movements conform to laws in almost perfect harmony with those of planetary motion, and not at all less inviolable and inevitable, though undoubtedly much more complex and modifiable.

This effort was made among the Romans by what has been termed an Agrarian law, a law restricting landed possessions to a certain amount, a modification of a mere comprehensive law aiming at complete equality of possessions in the social state. Laws of this character have been attempted elsewhere, but their true operation and effect, or rather their total inoperativeness has been nowhere, perhaps, so conspicuously illustrated as among the Romans. Partial success may indeed have attended such attempts when made on a very small scale, as we see that a man may easily resist and control the gravity of a pebble or even of a bowlder, but finds it prudent not to meddle with an *avalanche*. So an Agrarian law, or even a law prescribing a total equality of possessions, may be rendered actually operative in a petty Shaker community, and partially so, even on a larger scale, in a small, isolated, peculiarly circumstanced community, of which one-half are non-property-holding slaves, like Sparta, but would most probably prove totally inoperative for anything except mischief in large communities like Rome, Britain, or America.

So far back as the year of Rome, 377, one Licinius Stolo, then consul, had procured the passage of a law that no one should possess more than five hundred acres of land, nor more than one hundred head of large and five hundred head of small cattle. The law, however, seems to have been very little regarded at the first, and in a very short time to have fallen into complete neglect. It remained a *dead letter* on the Roman statute book for some 243 years, down to the year of Rome, 620, when Tiberius Gracchus undertook the rash enterprise of reviving it, and requiring those who held lands in contravention to it to surrender up what they so held in violation of that law. It seems that about the same time one Laelius, a friend of the great Scipio, the younger, (who about that time signaled himself by the destruction of Carthage,) also conceived the idea of making an effort to revive the Licinian law, as it was termed, for the public good,

and particularly for that of the plebians, but that discovering the great opposition which the law would encounter, and the serious consequences likely to result from any attempt to revive it, he abandoned the idea, on which account, as Plutarch tells us in his life of Gracchus, he was called Laelius *the wise*. Assuredly it was a *wise* conclusion on the part of Laelius. Doubtless he had the sagacity to perceive that to attempt, at that period of the Roman State, to revive and enforce the old Agrarian law of Licinius, would be like starting an avalanche from some mountain height, which the little lawyers and their little law-makers could not very well control. But Gracchus, who was an orator rather than a statesman or political philosopher, had not, it seems, so much sagacity. He mistook the impediment to his project for a mere *boulder*, or other no very serious obstacle, which, with his little hand, as Roman tribune, he could roll out of the way. But it proved an avalanche which overwhelmed and crushed him, and in its mighty fall so shook and convulsed the Roman State that it never recovered from the effects.

Gracchus, in his very attempt to get his law passed, encountered a difficulty which he evidently had not reckoned upon, and which, in the end, led to his ruin and the defeat of his plans. One of his colleagues in the tribuneship, Octavius, whose influence the senatorial or patrician party, who were of course opposed to the project, had secured, put his negative on the law, which by the Roman constitution totally defeated it. Thereupon Gracchus resorted to the audacious revolutionary measure of degrading his colleague from office, by a vote of the people, and thus in violation of law procured the passage of his law. But on the sober second thought of the people, many who at first had approved, then censured the unlawful conduct of Gracchus. This urged him, by the necessities of his position, to still greater extremes in order to gratify and propitiate the populace, until at last the Senate, exasperated beyond the point of endurance, armed with staves and headed by Nasica, one of the largest land owners and greatest sufferers by the Agrarian law, rushed in a body into the capitol, where Gracchus was then in attendance before a vast assembly of the people, whence pursuing him in his flight they slew him, together with some three hundred of his adherents. Thus was the first blood shed in Rome on account of civil contention, but unhappily not the last. Caius, the brother of Tiberius Gracchus, shortly after lost his life, in like manner, in consequence of his efforts to carry forward his brother's disorganizing projects, and others still more so, on which latter occasion not less than three thousand persons were slain in civil strife. And this may be regarded as the end of the Roman experiment in agrarianism, and the natural, legitimate end of all attempts to inaugurate Agrarian laws in a highly advanced stage of civilization, and indeed of all attempts to force society into conditions antagonistic to the laws of nature, and the natural tendencies of human society.

Another noteworthy feature in Roman Sociology was its endeavor, by the direct authority of government, to make men moral and obedient to the rules of sobriety, frugality, and other commendable virtues. With this view they not only had an officer, styled censor, whose business it was to overlook and inspect the morals and private habits of the people, but they also enacted laws, from time to time, styled *sumptuary laws*, prescribing the quantity of meat and the kind of food which the citizens should be permitted to have at their private meals as well as their public entertainments, thus inaugurating a kind of inspectorship of the pantry.

Such laws are of no very serious consequence, either for good or for evil. They are not like Agrarian laws, which tend to set large masses of property to rolling, and to start them from their natural position on the heights of society, where they have been long agglomerating. They are not, therefore, like Agrarian laws, dangerous; they are simply impotent, though also odious, from their intermeddling spirit. Such laws are undoubtedly departures from the true course of governments, and may be regarded as indicating a somewhat rude and imperfectly developed social state. Accordingly we find that while they were very common among the ancient nations, they have almost entirely disappeared from modern society. Indeed, so imperfectly developed were the true principles of government in that age, in this respect as in many others, that it may be safely asserted that the Roman citizen, even under the republic, had less personal liberty and true individualism than the subject of a modern absolute monarchy—so called.

These laws are noticed here as being of a more fundamental character than those which appertain to the legitimate province of political government, and such they certainly are. They are noticed also with the design of showing by their known impotence how feeble is political agency in its endeavors to effect anything really fundamental in society, as the formation or modification of the morals and general habits of the people undoubtedly is. Such laws may be regarded as efforts on the part of society to react upon itself through the reactive influence of government with a view to increasing or strengthening its own inherent virtue. Indeed, scientifically considered, all the influence which government exerts on the general habits and character of society, at least where the government is conformable to the will of the community, as it generally is, in the main, may be regarded as the reaction of society upon itself. For government, at first an emanation from society, afterwards reflects back upon society a portion of that very influence which it originally received from society. But in nearly all cases these reflected influences are far more feeble than the immediate emanations from the original source, as we see that the moon, though indeed it reflects back upon the sun, yet it is with a far feeble light than that which it receives from the sun.

But let it be distinctly understood, with due reference to Aristotle and other wise teachers who have maintained the contrary, that it is not with reference to *this reflected influence* of governments that they are originally created, nor is it their legitimate business to aim at forming the morals and habits of the people. The true business of government is to throw itself forward, to act outwardly from the great center of the society from which it emanates, and to perform the evolutions for which it was originally impelled from the society, and not presumptuously attempt to act back on society. Its true impetus is forward, not backward. It is for its *action*, not its *reaction*, whatever that may unavoidably be, that it is specifically intended.

Government is an agency created by society for the purpose of performing directly those functions necessary to the life of a highly organized social system, which the aggregate society cannot perform itself. In the language of metaphor government is the great condenser of the light which society seeks to throw directly forward upon the canvass of its environment. It is with reference to this light which society seeks, through the condensing apparatus of government, to throw directly for-

ward upon its environment or surrounding circumstances that government is created, not with reference to the light which it may and unavoidably, must reflect back upon society.

Here we may discover at once the cause of the impotence of all attempts by governmental influence to make men virtuous, and the inutility of such attempts. They are impotent because they impart only *reflected* influence. They are useless because if the virtuous principle is already in society, without which the government can never receive it, society, by its own individual action, may cultivate and cherish the requisite virtues, and much more effectually than it can ever do by second-hand influences. If indeed society is already virtuous, what need has it of the intermeddling hand of political authority to direct it in the paths of virtue? If it is not, how can the government be expected to possess the requisite virtue? Is the stream likely to be any purer than the fountain whence it flows? Such, at least, has not been found to be the case with the stream of political authority. That society is indeed badly off which has to go to its politicians for instruction in the ways of morality—which has to go to law to learn virtue.*

That these attempts by political authority to make men virtuous, which were made among the Romans, were almost complete failures, and accomplished little or no good, is a fact too generally known to need comment. Nor shall we stop here to demonstrate that all interference by government with the individual activity of the citizen, which is not decidedly beneficial, is decidedly injurious and ought to be discountenanced.

In regard to the censorship of Roman society which was exercised by a special functionary of government, it may be worthy of remark that whatever benefit may have been derived from it, is derived in modern society from a somewhat different source, independent of government and of a much less equivocal propriety. *The press is the great censorship of modern society.* And whatever may be its evil as well as its good effects, it undoubtedly exerts a far more potent influence, both upon government and society at large, than was ever exerted by Roman censor. In this respect, as in some others, improvement in Sociology has come with larger development of human ideas and faculties.

In examining the political organization of the Roman State which it is proposed now more particularly to consider, and in reference only to its institutions as a republic, the first idea likely to strike us is, that of its extraordinary *complexity*, the more remarkable at so early a stage in human history. How is it, we are prompted to inquire, that we find a subtlety, intricacy, and elaborateness unknown to any modern society in the political frame-work of a nation of that early period and among whom we would rather expect to find a rude simplicity. But on further reflection we shall feel the less surprised, and be apt to conclude that such complexity, to a great extent at least, is rather the natural result of the efforts of a somewhat rude nation to develop and enlarge its political organization so as to accommodate it to an extraordinarily rapid develop-

* Nothing that is here said, of course, should be considered as inconsistent with the attempt on the part of government, through the instrumentality of State education, to train up youth in the ways of virtue as well as knowledge. On the contrary, nowhere will be found a stronger disposition than in these pages to inculcate the noble idea which Xenophon, as we have already noticed in his *Cyropædia*, accorded to the Persians, that whereas among other nations the chief aim of government was to enact penalties to punish crimes, the grand aim of the government among the Persians was, so to train up their youths that there should be no crimes to be punished. It may readily be discerned how different is the scope of the legislator or statesman in the two cases.

ment of national growth and national fortune, just as we see that a man often makes a long and elaborate speech because he is not sufficiently master of his subject to make a short one, or that another builds himself a huge, unsightly, intricately contrived house, because he had no definite idea, when he began to build, what he should eventually want. The Roman constitution, as it existed under the republic, was a *vast piece of political patch-work*, made from time to time, to suit the occasion, and very often on the spur of the moment. It had none of the beautiful symmetry of a modern St. Peter's Church, nor of the ancient Roman Capitol, designed by architects thoroughly masters of their art. It resembled rather that vast, confused collection of buildings at Moscow, styled commonly the Kremlin, or *Citadel*.*

This explanation, however, is only partially satisfactory. For the Roman constitution did not exhibit complexity only, but extraordinary sagacity, also, in some of its provisions. But this only again admonishes us how much mankind are disposed to depreciate the wisdom, as they are to exaggerate the virtue of former ages. The most noteworthy feature in point of sagacity in the Roman constitution, the structure of the *Comitia Centuriata*, has been universally attributed to Servius Tullius as its designer. And this king flourished in quite an early period of Roman history, in the *sixth* century before Christ. But there were wise men in those days as well as in the present. Servius Tullius was a cotemporary of Solon, Pythagoras, and Cyrus the Great. Nor was he himself a man deficient in sagacity, as is incontestably shown by his organization of the *Comitia Centuriata*, which will be presently more particularly noticed.

The next idea that would be most likely to strike us in regarding the Roman constitution, and which, perhaps, should do so in logical sequence, is that of the extraordinarily *contradictory* powers of the different integral parts or authorities of the government. Not only were there two chief executive magistrates or consuls, each of whom had equal powers with the other and could check the other, but there were ten other executive magistrates styled Tribunes,† each of whom had equal powers with the others and could check all the others, and any one of whom could completely check-mate the consuls and all the other officers, dignitaries, and powers of the State. Nor was the contradictory character of the Roman constitution confined to its executive department. It was scarcely less conspicuous in its legislative also. Not only could the popular assemblies enact laws without the concurrence of the Senate, and the Senate enact laws without the concurrence of the popular assemblies, though this latter occurred only in a few exceptional cases, but different popular assemblies, materially different in their organization, as the *Comitia Curiata*, the *Comitia Tributa*, and the *Comitia Centuriata*, each had the power to

* We may well excuse the admiration of so great a philosopher as Polybius for the Roman constitution, which he saw in operation at its most propitious period, when we consider that he had, most probably, never seen a better, nor one, perhaps, altogether so good.

† Dr. Adam Ferguson, in his history of Rome, says the Tribunes had not, legally, any executive authority. See his History of Rome, book i., chapter 2. If they had not any executive authority, what kind had they—legislative? If their authority was legislative, as it was indeed to some extent, it was equally executive. When Caius Græchus, as tribune, ordered the scaffolds which had been erected in the forum by the magistrates and wealthier citizens for renting out on the occasion of a prize that was to be fought, and on his command being disregarded, he summoned a number of laborers and had them demolished, will Dr. Ferguson inform us whether he exercised executive authority or not? It is not asserted by the historians that the act was not in the line of the tribunes authority, though Plutarch says it was considered "full of rashness and presumption."

enact laws without the concurrence of the other, so that there were three separate and distinct legislative departments in the government besides the Senate. And to cap the climax of all the contradictions of this extraordinary government, the Senate had the power, at its discretion, and without the concurrence of any of the popular assemblies, to invest a consul, or any other person, with absolute dictatorial power, by virtue of which he could over-ride the negative of all the tribunes, and put every other power in the State completely under him.

How was it possible, we are prompted to exclaim, for such a government to exist a day, much less for nearly five centuries, as it actually did, computing its existence from the expulsion of Tarquin to the usurpation of Cæsar? To the modern statesman, accustomed to *unity* in the executive department of government as an indispensable principle, it would appear difficult enough for the State to have got on harmoniously, with its executive *duality* in the consular power, without any regard to the still further counteracting power of the tribunes, and without any regard to the contradictory character of the legislative department. But when to this contradictory feature the others are added, one may well be embarrassed for a solution of the difficulties of the Roman constitution. How, it may be asked, was it to be decided when the decrees of the Senate should be received as law, and when the enactments of the popular assemblies, if they should happen to conflict? How, when there should be a conflict between the two great popular assemblies of the Comitia Tributa and the Comitia Centuriata, in the former of which the *plebian* power predominated, and in the latter the *patrician*? How, when a tribune of the people, presuming on his sanctity and inviolability of person and prerogative should undertake by his imperial *veto* to stop the whole machinery of government, as was not unfrequently the case, and the consul, armed with dictatorial power, by a decree of the Senate should come to arrest the daring tribune and over-ride his authority? What guaranty, moreover, was there that the Senate would not abuse its prerogative of creating a dictator at its descretion, or whenever in its sovereign pleasure it might see fit to *vote the State in great peril*?

The true answer to these questions, undoubtedly is, that which discloses nothing so forcibly as the great truth which it has been the constant aim of this review to develop into clear and distinct prominence, as one of the most important and fundamental in social science, though hitherto altogether too little considered, *that there are laws more fundamental than written constitutions—nay, than any distinctly recognized principles of government, whether written or unwritten, controlling the destiny of a nation*, or in the wise phraseology of certain *unwise* declaimers of the present day, and speaking as from above instead of below, there is a "higher law"* than that of mere statutes or recognized principles of government over-ruling the destiny of a nation, and to which the latter are altogether subordinate—that in short a very large portion of the laws

* It must be obvious that this phrase, "higher law," is here used in a somewhat different sense from that intended by those who have been, of late, most vociferous in regard to it. Without wishing to enter the list of controversy with that class of persons, the author would here merely remark that they seem to be singularly inconsistent with themselves, and inconsiderate of the teachings of the very "law" for which they profess such exalted devotion. For one of the first and most cardinal lessons of the "higher law" as received and interpreted by all truly wise men—nay, what may be regarded as its article No. I. is, *submit to the lower law*, except in those rare and extreme cases of wrong which justify a resort to the doubtful and dangerous expedient of *revolution*, or a general upsetting of the existing order of things.

by which a nation is really governed are neither written nor recognized as any portion of its established constitution.

That which harmonized all these discrepancies and contradictory powers in the Roman constitution, so long as they were harmonized, as well as those which, though in a far less degree, must unavoidably exist in all human constitutions, was the great overruling power of the discretion, the wisdom of the community at large, and of the various functionaries of the government. It was this that decided when the people should submit to the decrees of the Senate, and when the Senate to the enactments of the people. It was this that decided when one consul should be guided by the other, and when the tribunes should allow the consuls to take their course unopposed, or the contrary. It was this great overruling principle of wise discretion, of discretion on the part of the community at large, which decided, in cases of actual conflict between the different authorities of the government, which should be sustained. So long as this wise discretion on the part of the community at large continued, the greatness of Rome remained. When it ceased to exist, the glory and true greatness of Rome departed.

In the efficacy of this great overruling "higher law" of a wise discretion is to be found a solution, also, of the problem which must perplex many a modern inquirer, how was it possible for a society to endure a government in which, as in that of Rome and Athens, as we have already remarked concerning the latter in a former article,† the wise men or senators, for the most part, only deliberated on affairs of State, while the decision of them was left to the people at large. The true solution of the problem is, undoubtedly, this, that so long as those States were really well governed, the people had the discretion and good sense to allow the Senate to rule, by generally ratifying their decrees or recommendations. Thus we find Polybius, as before remarked, extolling this trait in the Romans, as contradistinguished from the Carthagenians, and setting it down as the principal cause of their greatness and superiority to their Carthaginian rivals, that they submitted to the rule of their senators. A great deal, however, of this submissiveness of the Roman people (as indeed that of every other people) to the rule of their senators or leading men, is attributable to another principle than that of wisdom, to a *negative* rather than a *positive* principle, to what may be termed the *vis inertia* of mankind, or their disposition to give up the control of their affairs to whomsoever exhibits the disposition and ability to control them in their stead.

In these two principles of rational discretion and the *vis inertia* of human character is to be found, in a great measure, the explanation of the harmony which generally existed and may seem so remarkable between the two consuls and the ten tribunes; though there is another principle equally as important, if not still more so, entering into the solution of this problem, that which may be termed the *magnetic influence* of superior over inferior minds. This principle we may see illustrated even in the rude ox. It has been often remarked of a yoke of oxen that how much soever one may pull against the other for a time, one at last gets the mastery, and the other ever after gives up to his domination. It was pretty much in the same way, no doubt, with the *yoke* of Roman consuls,

† See Article or Part iv. of this Review on Grecian Sociology, January Number of *Merchants' Magazine*.

and, in fact, with the *whole team* of tribunes. As to the consuls the operation of this principle was conspicuous under the consulship of Julius Cæsar. For Plutarch, in his life of this extraordinary man, tells us that while he was consul he so completely dominated over his colleague, that the wits of Rome referred to the consulships in which he held office, or one of them at least, as that of *Julius* and *Cæsar*.

It is proper, however, to remark, that these contradictory powers in the Roman constitution were not unfrequently the immediate occasion of great disorder, or, perhaps, we should rather say, they were the weak and defective parts of the Roman State, which were always most likely to be seriously affected by the maladies of the body politic, just as we see that the weak or defective parts of the natural body are those which are most apt to be seriously affected by the maladies to which it is subject. Thus, we find that the great disorder in the time of Tiberius Gracchus was immediately occasioned by the refusal of one of his colleagues in the Tribuneship to concur with him in his Agrarian project, as we have already shown. Thus, again, the immediate occasion of the civil war in time of Cæsar, was a conflict between the Tribunitian and the Consular power, the latter being backed by the Senate. For the Senate having invested the consuls with dictatorial power, in order to defeat the machinations of Anthony, Longinus, Curio and Coelius, tools of Cæsar in the Tribuneship, these tribunes fled from Rome to Cæsar's camp in Gaul, and thus afforded him a pretext for crossing the Rubicon, and striking down the liberties of his country—the pretext, forsooth, of *maintaining its liberties*, by defending the *sacred* character of that awkward, rickety contrivance, the Roman Tribuneship.

It may be said, indeed, that if there had not existed these occasions, others would have been found for the introduction of the elements of destruction into the Roman State. This is undoubtedly but too true. What goes up must come down, and *whatsoever is born must die*. This is true alike of nations and individuals—of the body politic as well as the physical body. But it is also equally as true, and never to be lost sight of, that in both cases the duration and vigor of life depends very much upon *the constitution*. Hence, it is very desirable, and highly important, that the constitution of a state, as well as of an individual, should be as free from defects as possible, though we must again here note, that the real constitution of a State is something more fundamental than its mere political organism, though the latter is no unimportant part of it. And, indeed, in regard to natural, as well as individual welfare, it is to be studiously remembered that *nothing is unimportant*. That which may be so called, is only comparatively so. If the Roman State, as a republic, lasted nearly five centuries, with all the defects of its political organism, how much longer might it not have lasted, had it been free from those defects?

Another noteworthy feature in the political organism of the Roman State was, what we have before remarked in this review, concerning that of Sparta—that the checking and balancing of political powers, which, in the most approved modern States, is carried on almost exclusively in the legislative department of the government, was in Rome carried on also and chiefly in the executive department, and, indeed, by special functionaries, created for the very purpose. This was the specific function of the Roman tribunes, as of the Spartan Ephori.

Another feature worthy of note in the Roman State, was, that the executive magistrates had *legislative* as well as executive powers, or at least powers very nearly akin to legislative ones. The consuls and tribunes, nay, the very censors and ediles, had power to issue mandates, and then to enforce them. It may be said that this is also the case with the chief magistrates of Britain and America, and other executive magistrates of modern times; and that a certain degree of legislative authority, and, indeed, of judicial also, are necessary incidents to executive authority. This is undoubtedly true; but in the Roman State this blending of powers was carried to a much greater extent than in any modern States that may be regarded as model governments, and was attributable, undoubtedly, to an imperfectly developed political organism. This blending of powers was conspicuous also in the Prætors, or chief judicial functionaries of the Roman State; for, on entering upon office, they always promulgated their edicts, declaring the principles on which they intended to administer justice, which edicts were always received throughout the State as binding authority, and original sources of the State jurisprudence.

The most noteworthy feature in the political organism of Rome, however, and because of the really valuable suggestions to be deduced therefrom, was that which related to the organization of the popular assemblies. These, as before remarked, were three in number, the Comitia Curiata, the Comitia Tributa, and the Comitia Centuriata, or the assemblies of the people by *parishes*, *tribes*, and *centuries*, respectively. The first of these, which was of chief importance under the primitive monarchy, and which, Niebuhr assures us, was essentially a patrician assembly,* shortly after the inauguration of the republic, and after the Comitia Tributa had been instituted, fell into great neglect, and took a very small share in the government, though still continuing to exercise some comparatively unimportant prerogatives.

The two great popular assemblies of Rome were the Comitia Tributa and Centuriata, in the former of which the plebeian power predominated, and in the latter the patrician. In the former were elected the tribunes and other inferior magistrates, and also the provincial magistrates; in the latter, the consuls, prætors, and other high officers. In the former, too, were passed laws, styled *plebisca*, or popular ordinances, which at first bound only the plebeians, though afterwards the whole State; but they were never rated so high, it seems, as those enacted in the Centuriata. In this latter assembly were enacted the most important laws, and the greater number, though we find that the Agrarian law of Gracchus was passed in the Comitia Tributa, which shows how imperfect was the demarcation between the prerogatives of the two assemblies, in respect to making laws, if, indeed, there was any. In respect to criminal trials, which, in Rome, as in Athens, were made by the popular assemblies, the lower grades, or those punishable by fines, and the like, were

* See Niebuhr's History of Rome article on the "Patrician Houses and the Curies," volume i. pages 336-7. The elaborateness of this learned historical critic is well illustrated in this article. After a learned disquisition, extending over *thirty* pages of large octavo, the essential idea which it seeks to develop is summed up, at the conclusion, in these few words:—"History cannot supply a more conclusive proof for the identity between the comitia of the curies and the assembly of the patricians." Whether Niebuhr was right in this conclusion, the author of this inquiry does not deem it important to express any opinion. The conclusion is opposed to generally received opinion before the time of Niebuhr, and Chancellor Kent declines acquiescing in it. See Kent's Commentaries, Lecture xxiii., part iii., page 518, and note thereto of third edition.

held in the *Comitia Tributa*. Capital crimes, treason and the like, were tried in the *Centuriata*.

Now, that which is most noteworthy and most remarkable, concerning all the assemblies, is, that in not one of them did the people vote *per capita*, as would seem most simple and natural, but upon a far more complex and truly scientific principle, which we would scarcely expect to find in any but a highly enlightened and advanced state of society. There was no voting upon, what has been called in modern times, "the general ticket system;" but everywhere, in all the popular assemblies of the Romans, they voted upon what might be termed the *district* system, or the *classification* system. In the *Comitia Curiata* they voted by *curies*, or, as some have rendered the term in English, by *parishes*, of which there were originally thirty, a number, by the by, which seems never to have been enlarged or diminished. In the *Comitia Tributa* they voted by tribes, divided off according to locality, as the wards of a modern city, and the townships of a modern county, or other integral part of the territory of the State, the number of tribes being, at the period of the full development of the Roman State, *thirty-five*, four of these being city, and the others country, tribes. In the *Comitia Centuriata* they voted by centuries, and centuries of classes, of which some remarks more particular will be presently made.

In none of these cases was it the majority of all the voters that decided questions, but a majority of *curies*, *tribes*, and *centuries*, respectively. So that the Roman mode of voting is not to be confounded with the modern mode of voting in *precincts* or *wards*, in State or city elections; for, in these latter cases, they vote *in* precincts and wards, but not by precincts or wards. It is not the majority of the wards in an American city election that elects the Mayor, or, as the Romans would term him, the Major, but a majority of *the people* voting in their respective wards.

It is true that this Roman mode of voting may be recognized here and there in the American system of government, as in the election of President, who is chosen by States, and in that of members of the Federal House of Representatives, who are chosen by districts.* But this was rather the result, or at least the suggestion, of accident, than of design, so far at least as the voting by States is concerned, the States having existed before the federal government was organized. But in Rome it seems to have been purely the result of deliberation and wise design. Let this be well pondered by those who think that the moderns so greatly excel the ancients in wisdom.

Of all the parts of the Roman government, however, as before remarked, the *Comitia Centuriata*, the brilliant conception of Servius Tullius, (as it is reported,) was the most subtle, and decidedly the most artistic and scientific. Here, indeed, every Roman had a right to vote, but not as in the *Comitia Tributa*, according only to habitation in this or that ward or district, and every man's vote counting equally with every other's in his tribe; but in *centuries*, assorted by *classes*, so that *property*,

* Some years ago the attempt was made in one of the States to elect members of the Federal House of Representatives by the *general ticket system*, without any regard to congressional districts. This was but an extension of the iniquitous and unscientific mode of voting which generally prevails throughout the American republic as well as the British. But the good sense of the people, in this case at least, indignantly frowned down the unjust experiment, which was designed to accomplish what it is its inevitable tendency to accomplish—to stifle the voice and annihilate the strength of *minorities*, which undoubtedly have their rights as well as majorities.

and by consequence, to some extent at least, *character*, voted, as well as *numbers*, and votes were *weighed* as well as counted, so far, indeed, as votes can be weighed by the *property scale*, the only *practicable* mode, though assuredly not *intrinsically* the most *just* one, of weighing votes.

With a view to the organization of this great popular assembly, all Roman citizens were distributed into six different classes, according to the value of their property, and these classes were subdivided into 191 or 193 centuries; it is not entirely clear, nor very important, which of these was the true number. The first class, comprising those of the largest fortunes, though numerically smaller than any of the others, was subdivided into *ninety-eight* centuries, a decided majority at once of the whole college of centuries. The second class in the property scale was subdivided into *twenty-two* centuries, the third into *twenty*, the fourth into *twenty*, the fifth into *thirty*, while the sixth class, though numerically larger than any of the others, comprised only *one century*, and had only *one vote* in the great Comitia Centuriata.*

Whether we consider particularly the peculiar organization of the Comitia Centuriata, or direct our attention only to the general plan adopted in the Roman State, of voting in *subdivisions*, by districts and classes, instead of the simple and unlimited *per capita* system, which tends to submerge the power of *minorities*, however large and respectable, as well as all individual influence, in the great sweeping sea of an *unlimited* democracy, we must accord to the Romans the possession of some highly valuable ideas respecting the political organization of States.

Nautical science has recently discovered that in the structure of ships it is of great importance to conform to the plan of building by separate *compartments*, instead of the old plan, or what may be termed the *general hull system*, the utility of which later style of ship building was strikingly illustrated, as many must remember, in the memorable case of the steamer "Arctic," which, being built on the old plan, went down in a few hours after the collision, while the other ship, which was built on the plan of separate compartments, though equally as much damaged in the collision, went on her way without serious inconvenience. There is no doubt that this idea is as valuable in political as in nautical science. The ship of State, not less than the ship of the ocean, may many times owe its salvation from the dangers of the sea, to its being constructed on the plan of *separate compartments*. It was upon this plan that the political structure of Rome, as a republic, was formed.

In the American system of government, this plan may be detected in the separate State organizations, and in some other features just now pointed out. Nor has the great merit of the *federative* system of government which prevails in America been overestimated, even by its strongest eulogists. It is to be regretted, however, that, in their admiration of the *federative* system, or what may be styled in more comprehensive, and therefore more scientific language, the *separate compartment* system, they have failed to discover that the system or plan is susceptible of a far more extensive application than it has received in American or even Roman politics. May not the American statesman, however, derive some important suggestions from the Roman political system, on

* See Adams' Roman Antiquities, article on the Comitia Centuriata.

this point, as well as on some others? Undoubtedly modern political science is greatly in advance of that of ancient times. But there is a little doubt that it might be still more advanced, if it would adopt some of the ideas which it has either rejected or overlooked in the science of antiquity.

In taking a glance, historical and critical, at the jurisprudence of Rome, it is not with a view to remarking upon its intrinsic merit, or the important part it has played in the contemporaneous or subsequent history of mankind. That the system of jurisprudence which was gradually developed and fashioned in the Roman empire, under its republican and imperial forms of government successively, was the most admirable ever yet developed in human society, (except in its political relations, or its provisions in respect to the relations of the citizen to the government;) that it is the *body* or *trunk* of the existing jurisprudence of the most enlightened nations of continental Europe at the present day; that it has been extensively *engrafted* on the great body of the English and American law, and has served greatly to improve the quality of both; and that it has been, and still is, the *great nursery* whence the most learned jurists have obtained, and continue to obtain, new *scions* (so to speak) for propagating more extensively the principles of an enlightened jurisprudence, are truths too well established, and too generally known, to need repetition here, nor have they any specific relation to the purposes of this review. Remarking upon the renowned work of Tribonian, and his sixteen colleagues, who, in the sixth century of the Christian era, under the reign and by the direction of the Emperor Justinian, prepared that vast abridgment of the principles of the Roman law, commonly known as the "Pandects of Justinian," Chancellor Kent, whose authority on this point does not at this time need verification, has said: "But, with all its errors and imperfections, the Pandects are the greatest repository of sound legal principles, applied to the private rights and business of mankind, that has ever appeared in any age or nation."*

That which it is designed here to remark, concerning Roman jurisprudence, and which has specific relation to the purposes of this review, is, that it illustrates well, and more clearly, perhaps, than any other, the true relations of jurisprudence to fundamental Sociology and general politics, and its independence of both, at least to a great extent, and serves to teach us that, while a just and highly developed system of jurisprudence is indispensable to a perfect state of society, neither a perfect state of society, nor even a perfect system of government, necessarily results from, or coexists with, a perfect system of jurisprudence.

The medical philosophers have remarked that all diseases, in their commencement, are nearly the same, and only as they become gradually developed, assume their peculiar and distinctive characteristics; a truth, by the way, which is only a particular exemplification of a much more comprehensive one, that *nature every where works upon a few fundamental organic types*. This remark of the medical philosophers, with regard to disease, may be applied, with but little modification, by the political philosopher to the functions of government, of which it may be said that, in their commencement, or in the commencement of a State, they are the same, or are to be found indiscriminately blended in the

* See Kent's Commentaries on Law, Lecture xxiii, part iii., page 541.

same hands—the king, chief, or patriarch, being generally law-giver, judge, and chief magistrate, or the legislative, judicial, and executive functionary of the State. But as society grows and expands, these several functions of government become more and more disengaged from their primitive connections, until in a highly developed state of society they stand almost entirely aloof from each other, and more especially the judicial function, which assumes the distinctly marked characteristics of an *imperium in imperio*.

This was strongly exemplified in Roman jurisprudence, and Roman society was the first in which jurisprudence became so distinctly developed, although even there the judicial function was much more blended with other powers of government than need be, the popular assemblies having continued, to the latest day of the republic, the tribunal for the trial of criminal offences, and the emperors having, to a great extent, succeeded the popular assemblies in this prerogative. It is this distinct development of the judicial function of government in the case of Roman jurisprudence, which renders it so fit (or so much more so than that of any other ancient society) for illustrating the true relations of that science to the fundamental welfare of society, and its political institutions in general.

The first remark that may be naturally suggested to the social philosopher, by a survey of Roman jurisprudence, is, as to the very limited influence which the judicial function of government, however well administered, exerts upon the general welfare of society. For here we find a system of jurisprudence, world-renowned for its excellence, in practical operation in a society in many respects the most depraved, and unfavorably circumstanced, that has probably ever existed in so highly developed a state of civilization. This will appear the less remarkable, or rather the more easy of comprehension, when we consider that the principal function of jurisprudence is to regulate and enforce contracts between the different members of society; and when we further consider how small a proportion of the transactions of mankind *take the form of contracts*, and of those which do, how small a proportion, again, ever need the interposition of the judicial authority of the State to enforce them—thus affording another illustration of the famous lines of poetry:

“ How small of all that human hearts endure,
That part which laws or kings can cause or cure ?”

The next remark deserving the special notice of the social philosopher, that may seem to be naturally and in logical order suggested by a survey of Roman jurisprudence, is, that as society owes but little of its real prosperity to its jurisprudence, so also the jurisprudence of a society owes but little of its real merit to the society; that is, in its aggregate capacity as a State, or to the laws that are enacted by State authority. In short, a critical examination of Roman jurisprudence, will show us, perhaps, more clearly than any other, that a very small proportion of the jurisprudence of a State is referable to the deliberate or concerted action of the State, to written or statute law, and that a much larger proportion is referable to what the English and American lawyers have styled the unwritten or *common law*, which cannot be traced to any authoritative action of government. This remark is in entire accordance with the more general one, which has been repeatedly made before in

this review, that society owes but a very small part of the laws by which it is really governed to its political organism. In the remark here under consideration, we are called upon to notice, that a very large proportion even of those laws which may be regarded as appertaining to the political organism of a State, and which comprise a part of the State jurisprudence, are referable to other than political authority, and owe their origin to what may be called the *spontaneous action* of society, or at least of its *non-recognized* rulers or law-givers.

Much discussion has been indulged in by writers on English law, as to the origin of what they term, with rather questionable scientific propriety, the "Common Law" of England, some contending that it is referable to "statutes worn out by time," others, that it is referable to the opinions of learned judges and authors, and others, again, that it is referable, in part, to both, while all agree that its origin cannot be definitely fixed, and that it has existed for a "time whereof the memory of man runneth not the contrary." As to the origin of the Common Law of Rome, there does not exist any room for controversy. It is clearly traceable, not to "statutes worn out by time," nor to statutes recognized as such, but to the independent action of learned individuals.

The three great sources of the Common Law of Rome, and in fact of much the larger and more important part of the entire bulk of Roman jurisprudence, were the *Edicta prætorum*, the *Responsa prudentum*, and the *Legis actiones*. The first of these, or the edicts of the prætors, including therewith the special decisions of the prætors or judges, may be regarded as having some of the characteristics of a formal act of the State. But it has obviously far less of these than a statute law, or edict of an emperor. And as to the mere edicts or *dicta* of the prætor, on entering upon office, it is very obvious that they have not, essentially, any more claim to be regarded as law than a mere charge of an English or American judge to a jury, or even, what is termed among English and American jurists, an *obiter dictum*, or incidental remark of a judge, which is not considered as having any of the dignity even of a judicial decision. Yet these quasi *obiter dicta* of the Roman judges were, by tacit consent, received as law in the Roman State, and, by the way, with much more reason and propriety than a hastily enacted statute, and still more than one passed under the influence of some unwise popular excitement. Nor will it be amiss, in this connection, to remark, that the less we have of statute law, for the most part, the better; and that the *judiciary of a State*, as to much the larger part of its jurisprudence, is its *best legislature*. This principle they seem to recognize, to some extent, in England, where Parliament never thinks of enacting a new law seriously affecting the State jurisprudence, without consulting the most learned judges of the realm. Unhappily, in some countries, a like degree of discretion and sagacity is not displayed.

The second great source of Roman jurisprudence, the *responses of the learned*,* was peculiar to the Romans, though chiefly in this, that it was a more formal, distinct, and prominent recognition, than we find any where else, of the influence which the learned and wise always exert, to

* These responses of the learned, or *responsa prudentum*, as they were termed in the Roman language, were the answers of men learned in the law to questions of doubt and difficulty, submitted to them as they might from time to time arise, and had none of the characteristics of statute law; yet they were received as authority and law among the Romans, as much as is a judicial decision in England or America.

a greater or less extent, however little recognized as any part of the political organism or governing power of the State, upon the destiny of society.

The third source of Roman jurisprudence, the *actions of law*, or forms of action, or, what the English lawyers term, the *rules of pleading*, like the second, was, to a great extent, independent of the political authority. For these seem very clearly to have been framed and prepared by the pontifical or religious order of the State, who, in Rome, as in every other State, in its early and rude condition, were the chief repositories of the little learning possessed by the State. Here, too, it may be worth while to note a resemblance between Roman and English jurisprudence, somewhat remarkable. For, as new forms of action were required by the expanding jurisprudence of England, the new writs for such actions were issued out of the Court of Chancery, the head of which, the Lord High Chancellor, has been properly enough styled "the keeper of the king's conscience," as the pontifical order at Rome might have been styled the keepers of the conscience of the Roman State. There was, however, this difference between the two cases, that the new forms of action issued out of the English Court of Chancery, by virtue of statute passed in the thirteenth year of Edward I., whereas they issued out of the pontifical college of Rome without any statutory authority.

It would be highly interesting to consider Roman jurisprudence in its relations to general history, in its connections with institutions and states of society which preceded and have followed it in the career of the human race, as a connecting link between the past and the present, as the preserving medium of the continuity of human progression, as the great vertebral column of humanity stretching across the centuries and giving some degree of consistency to the whole aggregate of human development. Much insight might it afford us into the back-bone and very *marrow* of human history. We might trace laws which sustain the vitality of many existing institutions of the present day to a remote antiquity. We might follow them back from America, where humanity is developing itself upon a grander scale than it has ever done elsewhere, to Britain, from Britain to Rome, from Rome to Greece, from Greece to Egypt, where our ascent of the stream of human progression, for the present at least, must stop, and where the origin of the human race, like the long-undiscovered sources of the Nile, is lost, and most probably ever will be to human intelligence, in dense clouds and inaccessible mountains.

The world-renowned court of the Areopagus at Athens was, undoubtedly, of Egyptian origin, having been established there by an Egyptian adventurer commonly called Cæcrops, some *fifteen* centuries before the Christian era, who doubtless scattered many of the seeds of Egyptian jurisprudence in the prolific soil of Greece. From Greece we may distinctly trace the course of jurisprudence into Rome, as illustrated in the laws of the Twelve Tables, and in numerous improvements thereon which may be referred to Greece. And from the vast granary or store-house of Roman jurisprudence, the seeds have been scattered far and wide over modern society.

A grave question may be raised, how would it be with mankind were it not for these aids which one nation or age obtains from its predecessor? and how would it have been, in point of fact, if Greece had not derived laws from Egypt, Rome from Greece, and modern nations from Rome? Doubtless, it may be suggested, the same reason which origi-

nally developed these laws in Egypt, would have eventually done so in other nations; but as undoubtedly their development would have been much more tardy than when aided by the direct teachings of their more enlightened predecessors. But, however this may be, or may have been, there is no doubt that in point of fact mankind are ever more disposed to avail themselves of improvements, whether in the machinery of society or any other kind, which are already developed and perfected, than to labor upon the resources of their own inventiveness and activity to create them, as we may feel well assured that in the ruder stages of society, and before lucifer matches had been invented, a man would not take the trouble to rub two sticks together in order to raise a fire, when he might light his kindling-wood at his neighbor's fire-place.

But these questions, more curious than practical, belong rather to the philosopher of general history than to the student of the philosophy of society, seeking to deduce therefrom no other than practical and strictly scientific results. It is true that our theme is a large one; and our review, could it speak, might adopt, with a slight paraphrase, the noble sentiment of Terence—

“Homo sum, et humani a me nil alienum puto.”

It might say, *man is my theme and nothing human can be considered foreign to its purpose.* But man is its theme only in regard to his material or substantial interests, and as to these only in so far as they may be developed and affected by human society.

Our review, as well as the main work to which it is designed as introductory, is indeed predicated upon the idea that *the study of all sciences is necessary to the mastery of one.* But consistently with this very idea other sciences are to be consulted by us only in so far as they may have a specific relation to the particular science of Sociology—*the science which takes cognizance of the material interests of man, in so far as they may be developed and affected by the social state.* In the treatment of a theme so vast, it will be important that we keep this consideration constantly in view, and, as far as possible, conform our remarks thereto with rigid and strictly logical precision.

Art. II.—RENT.

THE question of rent is of much less practical importance in the United States than in Europe, since *land*, from the use of which rent mostly arises, is generally held, as it should be everywhere, in fee simple by those who cultivate the soil.

Notwithstanding this, as a question of political economy, it ought to be understood here as well as any where else; and there is an additional reason why the subject should receive particular attention in this country, viz., that we have the best opportunity to observe the various facts and phenomena connected with it. With a new country, and constantly entering upon wild lands, we have demonstrated every day before our eyes, the working out of those problems which for a long time puzzled the wisest philosophers of the old world.

The origin or cause of rent, the principle on which lands of different fertility are entered upon and settled, the influence of location, fertility of soil, etc., etc.—all these things are developed before our daily observation in a plain and practical manner; and we ought to present to the world a clearer and more satisfactory explanation of the whole theory than has ever yet been offered. If we fail to do this, it must be because we lack the ability or disposition, rather than the facilities, for doing so.

Rent is the amount paid for the use of land and its appendages, which, together, are called Real Estate.

Rent, then, is virtually paid—

1st. For the use of land.

2d. For the improvement upon, or the permanent additions made to it, as clearing, fencing, draining; houses, stores, factories, etc., etc.

If it be asked why we should not distinguish between the use of the land and that which is added to it, we reply, first, it is impossible; and secondly, of no practical utility. We can never determine with accuracy how much of the value of real estate depends upon its original advantages and properties, and how much has been added in various ways. Especially is this true of long and thickly settled countries like the European; and even in the United States, where everything is comparatively new, it is quite impracticable. Besides the *natural powers* of the earth confer no value. No question is more fully settled by political economists at the present day, than that *natural agents*, as land, water, wind, steam, electricity and the like confer no value.

Capital and labor, *joined with* the natural powers of the earth, produce a great part of the wealth of the world; but it is the latter and not the former which give value.

The rightfulness of rent for the use of land in any case, has been disputed by some writers. Why, it is asked, should rent be paid by one man to another, since the Creator has given the earth equally to all, and the natural powers of the earth confer no value?

Our first inquiry may then properly be as to the origin of Rent—whether it is founded on a natural law, and arises from the obvious necessities and interests of mankind.

We answer, the principle of rent is just, because it follows as a necessary consequence of *individual appropriation of land*, without which rent could not exist, and with which it would exist, even had the earth equal fertility everywhere, and were there just as much land as every one wished to occupy.

The inquiry may then come, is this appropriation of land necessary to the greatest production of wealth, and the general welfare of mankind—is it in accordance with the laws of wealth and population?

To answer this we must refer briefly to the history and progress of the human race.

I. Man in his original or savage state is a *hunter*. He lives wholly by destroying animals, and gathering the fruits of the earth that grow spontaneously around him. His dwelling is a temporary cabin. He accumulates little or nothing. His means of subsistence are precarious; he lives from day to day by fishing and hunting. If these fail him he is in a state of suffering or starvation. He has nothing permanent. Population, under these circumstances, is sparse, and increases very slowly. In this state there is no rent, for land is not individually appropriated,

and there is no occasion for it. True, certain tracts of country are admitted to belong to certain tribes, but they live independent of each other, neither giving nor receiving rent.

But the savage state does not permanently continue, especially in temperate climates. The time will come when game and fish and natural fruits become scarce, and some other mode of living must be resorted to. A little reflection (and stern necessity will compel even the savage to reflect) shows him that if he should catch and tame the wild animals around him, he might, by procuring their natural increase, and using their products, make them vastly more useful to him than by destroying them in the chase, and provide a safeguard against those imminent dangers from famine to which he has heretofore been exposed. He does this, and is thus introduced into the second, or—

THE NOMADIC STATE,

and becomes a shepherd. His business is no longer mere destruction, but preservation and use. This has an elevating effect on his character. It calls into action higher faculties and better emotions. He now wants a tent, for he must remove from place to place to find pasturage and water for his flocks. He has many cares; must attend to and constantly provide for his herds. This changes his whole mode of life, all his habits of body and mind; and thus he advances by a natural law to a higher condition. Being more comfortable and secure, and his life and health less exposed, population advances with greater rapidity. Nomadic tribes have always been numerous, and as they begin to encroach upon each other, the boundaries of territories are more minutely and accurately defined than in the savage state. The unsettled, wandering habits of these tribes qualify and predispose them to engage in predatory wars. Hence we find that many of the greatest conquests of antiquity were made by this description of people—the Tartars, Arabs, and other eastern nations. Instance those of J inghis Khan, Tamerlane, etc.

In this condition of life there is no rent, no individual ownership of land, and no occasion for it.

But the shepherd state is transitory. Population advancing with great strides, additional resources for supplying food become necessary. The lands will not supply sustenance for flocks sufficient to meet the demands of the people. Some new device must be hit upon. To meet this emergency reflection would very naturally suggest that, if the seeds of the wild grains and grasses were planted and preserved from destruction by men and animals until they had arrived at maturity, their quantity and quality might be greatly increased. The experiment is tried, and twenty bushels of wheat are obtained for one bushel sown. Now, every provident man will turn his attention, at least in part, to the raising of crops. But in order to do this, the ground must be fenced and prepared for the purpose. A selects a spot which he thinks particularly adapted to his use, but B wishes for the same land and for the same reason. Each has an equal right; how shall the preference be determined?

Evidently the time has now come when the land must be divided amongst the inhabitants, each of whom has *now* a natural right to a portion of it. The government, or civil power, whatever it may be, is called upon to decide on what terms each individual or head of a family shall hold a parcel of land. If the government is at the expense of surveying

it, of making public highways through it, or in any other way rendering it available to the occupant, it may rightfully require that the person put in possession of it in fee simple shall pay a certain sum down, or an annual rental. And furthermore, if some of this land is more available and productive than the rest, may not the government rightfully place a higher price upon it? Must it not do so, in fact, if it would do equal justice to all? And now we have come to the age of *rent*, to the state in which it arises naturally and inevitably, and *therefore rightfully*. The condition of man is greatly improved by this arrangement, and he introduced into the third, or—

THE AGRICULTURAL STATE.

In this, his chief business becomes the cultivation of the earth. His wants are vastly increased. He now requires a permanent dwelling and furniture, a house, and a *home* for himself and family; a barn to preserve his crops and shelter his cattle. He must have tools with which to break up and till the soil; he must have greater power than that of his own muscles, and he yokes the ox and harnesses the horse to aid him in his labors. He must have carriages with which to transport his products. His cares, his labors, and his enjoyments are immensely increased. His crops greatly exceed his own necessities, and he wishes to exchange them for such things as his taste or convenience demands. All this gives rise to the mechanic arts and a great system of commerce, and thus he is advanced into the fourth, or—

THE CIVILIZED STATE.

In this state all the three grand branches of human industry are united and developed in their greatest perfection. An extended intercourse now arises between all parts of the same country, and between it and other countries. The sails of commerce are unfolded to the breeze, and great commercial centers, or cities, grow up in the most favored locations. The principle of rent, existing in its primitive simplicity in the agricultural state, is now made more complex, is indefinitely extended and intensified. It has arrived at its *ne plus*.

We have now traced the origin of rent; and the question as to its rightfulness, or the propriety of individual ownership of land, is answered, if we have shown a mutual necessity for its existence, and that it arises, not from legislative enactments merely, but from the legitimate wants of the human race.

To those who maintain, as some have, that every person has a claim by birth to a portion of the earth, we might reply by asking, how much, and where? Is it wild or cultivated land he is entitled to? Is that all, or the best, he can claim in virtue of his birth-right?

The whole assumption, however, seems to us unphilosophical and absurd. It is not a "piece of land" that every child is peculiarly entitled to, but *all the advantages* which the civilization in the midst of which he is born can afford—to care and protection in infancy, to education and culture in childhood, to training and discipline in youth, to the use in manhood, in common with others, of all the institutions of social life, of all that has been achieved for public benefit, and of so much of private wealth as those ought respectfully to bestow upon him who, from their relationship or other circumstances, are under a moral obligation to do

all in their power for his welfare and happiness. This is the true birth-right inheritance of every child, and a much richer one, in a country like ours, than "a piece of land."

We now proceed to state the causes which determine the rent of land:

I. The first cause of rent arises from the social nature of man, which gives to land a value or rental wholly dependent upon its *location*.

If each family in a given country were isolated from every other, and no intercourse between them was needed or desired, there would be no rent, provided there were land enough for all, and all was equally eligible.

But as a social being, man desires intercourse with his fellow man—can only attain his highest state of civilization and happiness by uniting himself with others, and therefore we find, as a consequence of this fact, that *rent* would attach to land, if there were enough free to all, and all equally good.

This, as well as other important principles, we propose to illustrate in the following manner:—

A colony of thirteen families is transported to some uninhabited country where the land is all unclaimed, and immigrants have only to choose which and how much they will occupy. On examination they find that the soil on the immediate shore where they land is all equally fertile and desirable; that the approach to it everywhere equally favorable; and in point of fact, there is no natural difference between one lot of 160 acres (the amount each family desires) and another. There is absolutely no choice arising from any natural cause appertaining to the land. They accordingly lay out thirteen lots, each half a mile square, containing, of course, 160 acres. This allotment we represent as follows:—

ILLUSTRATION I.

1	2	3	4	5	6	7*	8	9	10	11	12	13
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From this arrangement it will be seen that the lots commencing on the left hand are numbered from one to thirteen; that lot No. 7* is the middle lot, and that the other lots on each side are equidistant from that lot. Now all these lots being equally eligible, the land equally accessible and good, and there being as many lots as settlers, and all they desire, will there be any value to either of them? Will any one give a premium for a choice? Yes, because all will prefer lot No. 7, since every one perceives that No 7 is most desirable, from the fact that it is the central lot; that if a school-house is erected for the accommodation of all the children it must be on that lot—if a place of worship is built it will be on the same lot. If a landing place is made, or a warehouse put up for the commerce of the settlement, it must be on No. 7, for the obvious reason that it is the central point at which the whole population can most readily assemble, and that it must form the natural center of the business of the settlement.

All this is so apparent that every man would choose No 7; but only one can have it. What follows? It must be sold to the man who will give the company the most for it. Some one gives, we will suppose, 100 bushels of wheat, or its equivalent, 6 bushels rent per acre. All this, in principle, does inevitably happen in every case of new settlement of land. It would, perhaps, seldom appear in a manner so distinct and

marked as the case we have supposed, but it could not fail to exist and operate universally and absolutely.

If so, then we have established the fact that, although all land were equally fertile, and there were enough for all, and all equally desirable in every particular naturally appertaining to it, yet that rent would arise from the social wants of man, which make the mere *location* a circumstance affecting the value of land.

But we must further add, that not only No. 7 produces a rent as we have supposed of 6 bushels per acre, but Nos. 6 and 8, situated immediately contiguous, will command proportionate rent; so will Nos. 5 and 9 lying next; so will all the rest—the rent being graduated by the distance from the common center, until we get to Nos. 1 and 13, which being on the two extremities are equally eligible, and there being 2 lots and only 2 who wish for them, neither will bring any rent. On these last the social principle has ceased to act; one lot possessing as much advantage arising from that cause as the other. And it is still further to be observed that should additions be made to our colony, and another tier of land, or land at a greater distance be brought into cultivation, as it will be if additional food is needed, then Nos. 1 and 13 of the first tier laid out would have a value, or command a rent; and so would all the new land thus brought into occupancy, just in proportion to its distance from the common center, except always that those lots lying on the extremities of the last settlement, as before illustrated; while the rental or value of all the land in the first would be increased in proportion to the distance of the farthest land brought into occupancy.

This principle would continue to act indefinitely upon all the land connected with this particular center, and however combined with other causes affecting the value of land, would always exist as a separate and independent element of rent. It is that which arises wholly from location, and hence we lay it down as a principle that *location first gives rise to rent.*

THE SECOND CAUSE OF RENT.

II. *Difference of fertility.* We shall now find it convenient to refer again to our hypothetical settlement, in which we supposed that all the land was of one quality, and so far change the conditions as to assume that each tier of land is of a quality differing from the other in fertility.

The first tier will produce 40 bushels of corn to the acre, the second only 30. In this case it is clear that the settler on No. 2 may just as well pay ten bushels per acre rent per annum for each acre of land in No. 1, as to occupy No. 2 for nothing. Of course all land in No. 1 will bring a rent of 10 bushels per acre, there being, we will suppose, a demand for all the corn that can be raised on both tiers. If men can afford to cultivate No. 2 for a return of 30 bushels per acre, a rent of 10 bushels for No. 1 is rendered certain, and this too over and above the rent or value of the land arising from location, as just shown.

If we now further suppose of a fresh immigration, or the natural increase of population causes a demand for a third tier of lots, and these are of a quality still inferior to the second, and will produce but 20 bushels per acre, then the first tier will, on the principle before stated, yield a rental of 20 bushels, and the second 10. To carry this illustration one step farther; if a fourth tier were required, which would

only produce 10 bushels per acre, then No. 1 would command a rent of 30 bushels, No. 2 of 20, No. 3 of 10, and No. 4 would yield no rent whatever, except what might arise from location. This may be presented as follows:—

ILLUSTRATION II.

	Tier.	Rent.	Rent.	Rent.	Rent.
First settlement.....	No. 1.	0	10	20	30
Second "	No. 2.		0	10	20
Third "	No. 3.			0	10
Fourth "	No. 4.				0

Such will be the progress of rent arising from *fertility*, and this, *plus the rent* arising from location.

In the foregoing illustration which we have intentionally made as simple as possible, in order to exhibit more clearly the principle involved, we have supposed that the most fertile lands are uniformly taken by the first settlers, and so, other things being equal, they always would be; but there are disturbing influences, and hence such is not necessarily or usually the fact. On the other hand it is quite possible that the least fertile lands may be taken first, and the richer ones entered upon at a later period. It is quite certain that such is often the case.

For the sake of a more perfect illustration of this, let us now transfer our supposed settlement from the sea-board, where the influences of commerce would somewhat disturb the operation of the general principle, to the interior, where no such influences will be perceptible.

We will then suppose that tier No. 1 is a rich alluvial swamp, covered with an almost impenetrable growth of timber. No. 2 is upland, but also heavily wooded. No. 3 is a poorer quality of land than the last, but more immediately available, from the fact that it is but partially covered with forests; while No. 4 is a light and poor soil, but can be immediately cultivated, in consequence of its being entirely denuded of trees and easy of access.

Which of these lands, the settlers having a free choice of all, will they first settle upon? *The lightest*; and why? Because such lands are the most immediately available, and can be entered upon without any clearing or outlay of labor or capital. From this land the immediate wants of the new settlers can be most readily met. The question is not with them, where can the most corn be raised from the fewest acres of land, for that is no object, since land is plenty and without value, or very cheap; but where they can get the greatest immediate crops with the least immediate labor. This determines their choice, for such persons are not generally capitalists. If they are far-sighted they will wish, if in their power, to secure other lands for future culture; but for the time being they will occupy that description of land, *whether rich or poor*, that will give the greatest product with the least present labor. New settlers, as a general fact, have everything to do, and but little to do with; their labor is required to build houses, barns, fences, roads, bridges, school-houses, churches, &c., &c., and they must economize it to the greatest extent. It would, perhaps, require the labor of a man three months to subdue one

acre of tier No. 1. When it was cleared, drained, and cultivated it would, to be sure, yield 40 bushels per acre, while land in No. 4 will yield but 10, still he cannot advance the capital—that is, the labor necessary to make this improvement; and even had he money at command, he could use it in a new country to much better advantage than clearing and draining swamps. When he has exhausted the natural fertility of soil No. 4, or wants more land, he resorts to No. 3, the next poorest it may be, but the most available. When this tier of land is occupied and exhausted of its virgin fertility, as it will soon be, (for it will not be profitable in this stage of agriculture to spend time or money in enriching the soil,) he enters upon No. 2 and fells the forest. He is now, perhaps, remunerated for this labor in part, at least, by the price he can obtain for wood and timber, both of which, in the progress of every settlement, become articles of some value.

With the natural increase of population labor will become more plenty, and the demand for products will increase, and the time will arrive when even the land in tier No. 1, which we have supposed to be rich in quality, but requiring a great expenditure of labor and capital to be made available, will be brought into cultivation. The resistance to be overcome is great, but when once accomplished the largest crops will be gathered from the most fertile and enduring soil.

Such is the natural theory of the occupation of land, and the question now comes, does it correspond with the facts of history? We believe it uniformly does; making allowance for disturbing influences and the operation of the first cause of rent or value, that arising from location; for land difficult of cultivation, but near the social or commercial center, will be occupied in preference to that much more available, but more remotely situated.

As an illustration in proof, we would refer to the early settlement of Massachusetts.

When the Pilgrims left the *Mayflower* they settled, of course, upon the contiguous coast, light and poor though the soil was, and subsequent settlements were made with reference to commercial advantages, but as the population extended and men came to choose land for agricultural purposes merely, we find the spots selected first were those most nearly ready for the plow, or where natural meadows existed. These were found on the banks of streams and ponds, where the aborigines had principally lived, and from which they had burned off the forests. Hence the first interior settlements were made on the banks of the Connecticut, the Merrimack, the Nashua, &c. A tier of towns grew up on the whole course of these rivers. The lands were often of good quality, but this was not always the case, nor the reason why they were chosen, as we find that when the lands were light and poor, if they were free from the incumbrance of a forest, they attracted the settlers in preference to richer but more inaccessible soil. There are numerous instances of this. We take one immediately before us, the town of Brookfield. It was occupied by a colony in 1660, when there were no settlements within thirty to forty miles on either side. Why did the hardy pioneers push so far into the wilderness among hostile Indian tribes? What attracted them? Rich and fertile lands? No. But they found around the ponds in that locality considerable tracts of plain land, which, although light and of ordinary quality, was yet mostly free from timber and rocks, and could be

easily made to produce corn, rye, wheat, &c., &c. And what was equally important, they found that the natural meadows upon the streams afforded great abundance of grass, which, though of inferior quality, would furnish food for their cattle in winter. Here were their two great objects of desire; and to obtain these they struggled over hills, and through forests and swamps, passing by thousands of acres of land more fertile, but less immediately adapted to their necessities. When these plain lands were all occupied, and more lands were wanted, the settlers took possession of the neighboring hills and made their farms commonly on the very tops. This was because, as we learn from tradition, that these had been so frequently burned over by the Indians for the purpose of increasing the food upon them, and thus attracting deer and other game, that they were, to a great extent, cleared, and could be easily plowed. They were, moreover, more free from stones, more arable, and fit for cultivation than any other lands, except those first selected.

When these lands were settled recourse was had to lands occupying a middle position between the two former kinds. These latter were hard and rocky, but when once subdued, well adapted to crops. Last of all, the swamps have been encountered. These consist of small tracts of land lying between the hills, and were regarded by the early settlers as quite impervious. They have been gradually brought into cultivation until now but few remain in a wild state. They are altogether the most productive, and in the present stage of agriculture and abundance of labor and capital, the most profitable.

We conclude, then, both from reason and facts, that eligibility rather than fertility is the principle which governs the settlement of new lands; that other things being equal, those are taken first which will sooner, and with the least labor, furnish immediate crops. Ulterior or speculative views of course influence settlers in certain localities, as the future prospects of business, the location of public buildings, &c., but the great principle which determines the action of the pioneer is the one we have stated.

We have now presented those considerations, in regard to rent, which appertain to land in its natural state, viz. :—

1. That individual appropriation is indispensable to the existence of rent, or the condition on which alone it can arise.
2. That the first cause, that which determines the rent of land, independent of all other circumstances, is *location*.
3. That the difference of fertility is the second, as it is the chief cause of rent of land for all agricultural purposes.
4. That the order in which the different varieties of land are entered upon by settlers is determined, other things equal, by its eligibility or adaptation to their immediate necessities, rather than its natural powers of production.

Art. III.—BANKING AT THE SOUTH, WITH REFERENCE TO NEW YORK CITY.

THE Russian war, depriving England and France of their accustomed receipts of wheat and flour from the Black Sea, gave to all kinds of provisions an extravagantly high price. Under the influence of the European demand for provisions, combined with the receipts of gold from California and Australia, wheat rose from 80 to \$1 00, to \$1 75 and \$2 50 per bushel, and flour from \$4 50 to \$10 and \$15 per barrel. The high price and great demand for provisions produced, as a natural consequence, a great emigration to the fertile territories of the West, and imparted great values to Western lands. As another consequence, the construction of gigantic systems of railroads was stimulated by a hot-bed process to carry the golden harvest from Western granaries to the Eastern cities. These railroads again increased the prosperity of the West by cheapening the cost of transportation of freight—by rendering the country more accessible, and by building up large cities. Such was the condition of the great West as a consequence of the Russian war. Her great cities, her gigantic system of railroads springing into life with a celerity little short of the magic of a fairy tale, all were the natural consequence of that simple idea, the Russian war had enhanced the price of provisions, and the new, fresh, and fertile soil of the West, possessing an almost unlimited power of production, was intrinsically valuable, and they who purchased lands at low prices were sure to realize large profits from the investment. During this period nothing was more common than to hear that money could be loaned from 25 to 200 per cent, and that the borrower could make money upon the operation. The solution was plain. A man without capital could thus purchase land, say 100 acres, at government prices, and then owing for the whole tract \$375, he could very readily by one year's crop, with wheat at \$2 50 per bushel, and with land producing an average of from 20 to 40 bushels per acre, not only support himself, but pay off the whole debt.

Of course this extraordinary exhibition of prosperity, founded upon the apparently secure basis of the actual value of land from the value of its productions, tempted not only the emigrant, but the speculator. Speculation carried immense sums of money into the country, and furnished a large part of the capital that has so rapidly enriched the West. Places having no names on the map, were becoming cities of wealth, commerce, and refinement, surpassing many of the Eastern cities in population, and in the splendor and cost of their hotels, stores, and private residences. Then it really seemed as if there were no bounds to the prosperity of the country, and that the emigrant or speculator was sure to obtain a large profit from investment in lands. The most prudent men in the country were dazzled by the brilliant success of their more adventurous friends, and were tempted into like speculations. Those who purchased, were flattered by their agent into the belief that they had made fortunes by the enhanced value of their lands, and those who preferred to loan their money on a fat percentage, were equally certain of fortune. They were lulled to sleep with visions of wealth haunting their dreams.

So long as the price of grain continued high, of course so long would the railroads appear to be doing a most prosperous business. The immense crops to be moved to market, the great travel from this moving

tide of emigration and speculation, and with the land grant roads, the very high and increasing value of their lands, seem to insure perpetual and increasing profits. Accordingly, the whole country has been checkered with railroads, and the stock and bonds of these roads become a favorite investment.

As a natural consequence, from this great state of prosperity, the mercantile community of the West enjoyed unlimited credit at the Eastern cities. With continued prosperity to the country, the mercantile community were sure to prosper; for no country ever did prosper without the merchants obtaining their due share of the gains.

Such is a picture of the great West during the continuance of the Russian war. It is not to be expected that any violent, immediate check can be given to the seeming prosperity of a country by the action of distant causes—and accordingly with the termination of the Russian war, happening too, as it did, in the midst of winter, with no exuberant crops of grain to be brought immediately from the Eastern granaries of Europe, we did not see a sudden decline of prices to the old peace prices. But the fall was still great, and, unhappily, threatened to become still greater. The West, however, shut her eyes, as also did the New York merchants and bankers, to the consequences of the restoration of peace in Europe, the fall in the price of grain, the product of the West, and, of course, the commerce and wealth of the West, that depended upon her products to pay her debts and to enrich herself. It was an error singularly blind, but none the less fatal.

An examination of the statistics in some of the glossing publications of the Western cities during the spring of 1857, might have shown the cloud on the horizon which threatened the storm. In one of the annual reports of the Board of Trade of a large Western city, this striking fact was developed in the midst of great extravagance of diction in regard to its growing trade and increasing population, that while the exports and imports had for successive years gone on, *pari passu*, to increase millions of dollars up to the commencement of that year, yet, for that year, the imports had increased in the old ratio while the exports had not. The fact was striking. They attempted to explain it by saying that the farmers were holding back their crops, being dissatisfied with present prices, and hoping for better prices later in the season. But a man of ordinary intelligence could see that debts based upon wheat at \$2 to \$2 50 could not be paid with wheat at 80 cents per bushel. The fact was that it was the *value* rather than the *quantity* of the exports that produced the striking excess of the imports. The excess in that particular city was over \$5,000,000. This of course, could but end in embarrassment. But New York was blind, and permitted the Western merchants to extend their debts in part, and to make still larger purchases of goods during the spring, to be paid for in the fall. It was impossible for this state of things to continue long. Settling day, though postponed, must come at some time, and unfortunately it came when the evil of a stringent money market had been intensified by other causes. During the latter part of the spring and the early part of the summer, money is usually plenty in New York, and the banks, not having employment for their funds in legitimate banking, invite stock speculations by large loans on call, based on stock securities. Merchants of New York, hoping and thinking that easy times were ahead, captivated by the bubble of Western speculation,

not only invested their idle capital in Western railroad stocks and bonds, but many of them borrowed largely on these securities to make similar investments. They relied upon the punctual payment of what was due to them and upon the ready convertibility of the stocks and bonds into money to pay their debts falling due in the fall. But the price of wheat, which gave value to Western lands and railroads, and credit to Western merchants, had so fallen in value that in some cases farmers were constrained to withhold it from market, it hardly bringing in some cases more than enough to pay the cost of transportation. At the same time it was discovered that the railroads, by competition with each other, had so reduced their charges that few of them were earning a dividend, and it became problematical whether even their bonds were good—certainly that none could stand the test of a *panic*.

In August, 1857, the New York *Herald* announced the fact that "*one-half of the deposits in the New York banks were balances due to country banks.*" It stated further, that when these country (that is, all out of New York,) banks required money to move the coming fall crops, that they would draw down these balances and thus cripple the banks of New York.

The banks of New York commenced immediately to fortify themselves by calling in their stock loans, in anticipation of the fall investments of the crops. The merchants who had left their legitimate business to take a "fly" in Wall-street, found themselves in a dilemma. Their stocks were not saleable except at a great loss. They then turned to their Western debtors. These could not respond, because the price of the Western crops was insufficient to pay. Alarm seized upon the public mind—always sensitive in regard to mercantile credit. Stocks were daily sacrificed at daily increasing losses. Stocks of one road in particular, that cost \$120 per share, sold by the end of September for \$20. In other words, a gentleman of one of the Atlantic States that paid \$120,000 for one thousand shares of stock, found the value of his property reduced, almost in a day, to \$20,000, losing \$100,000 by no act of speculation on his part; his purchase having been for investment, not for speculation. This was no isolated case. Thousands of similar instances could be given. The early decline in stocks had caused the failure of the Ohio Life and Trust Company, having large loans to railroad companies and to individuals, based on stock securities. Its fall was like "the fall of a mighty tree in the forest." It intensified the panic. The country banks were seized with alarm in regard to their deposits with the New York banks, and commenced drawing them down in specie. This again reacted and intensified the panic in New York city. The banks again turned the screws upon the debtor. The slaughter of stocks, mercantile notes, and credit was dreadful. Universal bankruptcy seemed to be impending. The New York banks at last determined to stop specie payment; in fact, they were compelled to this step before any of the banks of our leading cities, (called in New York provincial or country,) except those of Baltimore and Philadelphia, had suspended. It was a bitter pill, and boldly did they struggle against this degrading alternative. But, to the honor of these banks, it should be stated that it was done, not as a measure of precaution, but of necessity, after having exhausted every expedient to preserve their credit. How low the specie reserve in some of the banks of New York fell that fatal Tuesday, before 3 o'clock brought

them relief, will probably never be published. It is not too much to say, however, that many a country store could boast of more coin in its till than some of these banks had. During the peltings of this pitiless storm, a small voice came up from Boston that the banks of New York could prevent the crisis and ward off the effects of the panic by expanding their loans. Ridiculous nonsense! As well attempt to stem the raging billows of Niagara with a broom-straw canoe. The error of the New York banks was in their course of banking months before the catastrophe of the suspension of specie payments, in lending the deposits due to distant banks to stock speculators, and not providing in time for the Western failures. The deposits of the New York banks are the basis of their loans in great part. In that consists the great error of their banking system—the building of a debt upon a debt. Say that the deposits of these banks was \$70,000,000, their specie \$13,000,000, one-half of the deposits, \$35,000,000, being due to country banks, how was it possible for the banks of New York to avoid the consequences of their folly except by suspension? In addition to the drain to Europe, it was known by those having the best opportunity for knowledge that specie was leaving the city by express, for these country banks, at the rate of over \$500,000 per day, and yet it was gravely proposed to remedy this by expanding the loans; in other words, expanding their circulation. The attempt would have been futile and idle. The error is in their system of banking, and must occur again and again and again, dragging down in one common ruin the guilty and innocent—the reckless speculators and the cautious capitalists, and bankrupting not only the merchant prince, but the widow and orphan, whose little all has been invested in some stock rendered valueless by these bank revulsions.

How the South has been effected, and how she may avoid the consequences of similar future revulsions, will be shown hereafter.

The same causes that produced the high price of grain, and of consequence enhanced so much the value of Western lands, and brought such an avalanche of wealth upon the Western States, naturally tended to produce the directly opposite result in the cotton States. It is an old adage, that as corn goes up cotton goes down, and *vice versa*. Both are now necessities, and a scarcity and high price of the one deprives the masses of the pecuniary ability to use the other extravagantly. In other words, the high price of the one compels economy in the use of the other.

During the spring preceding the announcement of the Russian war, provisions being low, cotton was high, according to this rule. Cotton was eagerly bought on speculation at 11 cents. It must be remembered that the gold receipts from California and Australia had been too small at that time to affect materially the price of anything. It was then safe to assume that the then price of cotton was a normal price, growing out of regular rules of supply and demand regulating prices. Further, it is highly probable that, the peace of the world continuing, and the demand for cotton increasing to supply the growing trade of the world, we should have experienced at the South some rapid development of our resources, as was produced at the North by the rise in the price of wheat. But the announcement of the existence of hostilities between the allied armies on the one hand and Russia on the other, at once struck down the price of cotton. However, the spirit of activity and enterprise that had been awakened in the rest of the world, was also aroused at the South, and railroad enterprises

were undertaken and prosecuted with some vigor. The low price of cotton induced many planters to employ a portion of their force in grading and preparing the road-bed. The operation was slow, but one fortunate result followed. The railroads of the South were built chiefly by the people of the South, with but little aid from foreign capital; and, as another consequence, they were built with much greater economy. The bonds and stock of the Southern roads, being held at home, and not in Europe and New York, as is the case with most of the Northern roads, their value was independent of the monetary condition of the New York market.

When peace was restored in Europe the price of cotton advanced. It had been ascertained, contrary to all expectation, that the industrial pursuits of Great Britain never received a greater impetus, nor was her trade ever more active, than during the pendency of the war. It was clear that trade and commerce would plume themselves for still bolder flights, and would send out their white-winged messengers to visit and explore more distant regions, now that the energies and the capital of both France and England had been set free to pursue the arts of peace. It was soon ascertained that the consumption of cotton had overtaken and surpassed its production. There was not cotton enough grown to supply the wants of the manufacturers. The manufacturers in England and France held anxious meetings on the subject, and finding that the supply of labor adapted to the cultivation of cotton was deficient, resolved that that kind of labor should be supplied. They knew that an insufficient supply of cotton for their manufacturing companies would compel the adoption of short time, and that would imply to the capitalist a loss of means, and to the laboring classes a stinted home, a cold and cheerless fireside, without the comforts or even the necessaries of life. The African slave trade, to the astonishment of Southern planters, was finding favor with England and France, under the new name and disguise of the Apprentice or Coolie system. It, in short, had become a necessity, and the manufacturing industry and commerce of the world could not exist without it. But it would take some time to obtain an adequate supply of this labor, and the demand for the raw cotton was instant and urgent. Accordingly, the price in England rose to 18 cents per pound. With diminishing stocks in England, and increased consumption, the planters sanguinely anticipated very high prices for their crops—a price ranging from 17 to 20 cents in our own markets—a price altogether reasonable if the usual laws of trade had been left undisturbed to regulate it. There was no flaw in the argument, every link in the chain of reasoning was bright, strong, and well connected. The friends of the South congratulated themselves that, with railroads now well nigh completed, and high prices of her staples, a flood-tide of prosperity was to flow upon her. Her people had been economical, prudent—averse to all mad schemes of speculation. Her wealth was the result of sober investment and of patient and well-directed labor. And yet—and yet—almost in the twinkling of an eye, with the suddenness of an earthquake, and unexpectedly as a stroke of lightning from a cloudless sky, cotton was struck down, and became almost unsaleable in the Southern market. How was this?

It will be recollected that the great evil of the banking system of New York, the banking on deposits, has been adverted to. Such a system of banking is at all times unjust; for it is not right that banks should carry on their banking transactions on a cash capital that does not belong to them. This is true in regard to the banking on the deposits of resident customers.

It is argued to be less unsafe when the deposits are from the community; for no one can doubt, in times of pecuniary pressure, where there was mutual confidence and mutual benefit, that the community would sustain the banks as far as possible. But when, as is the case in New York, so large a portion of their deposits are balances due to distant banks, (there being no common objects or mutual benefits, and often the very reverse,) how extremely dangerous does this system of banking become!

The suspension of specie payments by the banks of New York was unquestionably the result of a panic. But as long as the banking system of the State of New York remains unchanged, so long will it be liable to periodical suspensions, producing distress and ruin to the mercantile community. It matters not whether the liabilities of a bank are in its circulation or its deposits. If it does not preserve a sufficient proportion of specie to protect both, it must suspend under the influence of a run made upon it for specie to gratify the real or the *panic* wants of note-holders and depositors. In former years the great object of bank reformers was the security of the circulation. The free banking law of New York attempts to effect this by requiring a deposit of the securities for the amount of circulating notes. The law in other States, to accomplish the same security, requires the specie in the vaults of the bank to bear a certain proportion to its circulation. But experience has demonstrated that a bank stands in as much danger from its depositors as from bill-holders. In fact, a certificate of deposit and a note of a bank are in essence the same. The holder of either has the same evidence of debt due to him on demand to obtain specie from the bank; in the one case he presents the note, in the other he presents his check on the bank. Experience teaches that banks at large commercial points cannot keep out its circulation, while its deposits are generally increasing, while with the banks of the interior the reverse is true. The reason is obvious. In cities almost every merchant or customer of a bank has an account with the bank, and all discounts go to his credit as a deposit in the bank—so also all payments made to him are deposited in bank to his credit. But a farmer or planter who receives a bank-note, having no account at bank, carries it home with him and keeps it in some secure place until he has occasion to part with it to pay a debt, or otherwise use it. The longer he keeps the note out, the better, of course, for the bank. And in regard to the deposits in the case of the merchant, the longer that deposit remains unchecked upon, the better for the bank. The tendency of banks is to make money by issuing too large a circulation in proportion to its specie, or not retaining a sufficient amount of coin to protect its deposits. The same argument that justifies the requirement of a certain proportion of specie in the one case, applies also to the other.

But another great evil of the New York banking system is the use of notes of the denomination of one dollar and upwards. The evil of this currency is too obvious to be more than adverted to. The city of New York, whose banks show so large a proportion of specie to their circulation, is flooded with one, two, three, and four dollar notes of the banks of the interior and of the banks of the New England States. It is obvious how the existence of this evil and debased circulation, driving out of use the better currency, intensified the pressure when a run was made upon the banks.

The banks of Virginia have steered clear of both of these glaring faults. Most of the Southern States are legislating small notes out of existence, while the banking on deposits has never been carried to an injurious length.

And yet, while we of the South have the good sense to repudiate this vicious system of banking, at the same time we permit our banks to deal with and keep large deposits with New York banks, and to become so interlocked with them that their suspension must inevitably produce a suspension of our banks. That the system of banking in New York is radically defective is too obvious to require further comment. The superintendent of the Banking Department in New York points it out and asks for a corrective. He says :—

A more fearful and mightier power lies dormant, as yet, behind this disturbed currency ; the depositors in our banks, usually quiet, stable, and reliable.

The scarcity of money in the city of New York among the merchants and business men, continued to increase steadily and surely during September ; the rate of interest also steadily advanced. This tended to reduce deposits, and after a few spasmodic attempts at expansion of loans and discounts by the banks in that city, a steady and fearful contraction was begun.

In New York city it became a question of the suspension of the banks or the merchants as a body. Capital, in the shape of deposits, for the first time in the history of this country, and I think I may say in the world, sided with the business men and against the banks. The great concentrated call loan was demanded, and in such amounts that a single day's struggle ended the battle, and the banks went down before a storm they could not postpone or resist.

This result has demonstrated, and that, too, in tones that cannot be mistaken, and should not be forgotten, that a basis of one dollar of coin to nearly nine of liabilities, will produce a home panic of bank creditors, and a home demand for coin. As before remarked, this suspension stands alone, without precedent. The teaching of experience could not avail the bankers. No state of things like the present had ever before been approximated. The most sagacious banker, in his most apprehensive mood, never for a moment deemed it possible to have a general suspension in this State from a home demand for coin, while coin itself was at little or no premium with the brokers. The result sets at defiance the experimental knowledge of the oldest and most successful bankers in the State.

What should both the banker and the public learn from our late suspension ? In the opinion of the superintendent, this simple lesson, that a system of paper credits may be so enlarged as to render the position of our banks one of imminent peril, even with a contracted currency. That the greatest danger to the banker, as well as to the public, lies in the large amount of his deposits, and the least in the currency he issues.

This is heresy as compared with opinions heretofore entertained upon this question by men of experience.

Now, it is obvious from this, that these suspensions must occur again and again, with cause or without cause for panic, unless the evils of their banking system be corrected. The bankers in New York regard the banking on deposits the chief basis of their profits, and rely on them as a proof of their strength. It is in vain to expect a change of the law in this respect. But the South should legislate for itself, to avoid the evils of bank connections with New York, and, if possible, to avoid these evils, to break up the connection.

In Virginia a very curious and remarkable mode of banking is carried on. A preference is given to a four-months' draft upon New York to a

four-months' note on personal security. The manufacturers of tobacco are compelled, in order to raise money to carry on their business in Virginia, to have a northern correspondent, upon whom they draw these bills, and to whom their tobacco must be consigned. As the bills are drawn on the consignment of tobacco, that must go forward, no matter what is the state of the market in New York, and no matter how much depressed the article may be by reason of want of demand or a glut in the market.

When the tobacco arrives in New York, the agent there sells the tobacco as soon as he thinks proper, generally for an eight-months' note. He immediately takes the note, places it in the hands of a broker, who sells it at the current rates for similar paper. The proceeds, less the commission and a shave, are returned to the agent, who uses it in paying other acceptances falling due, it may be to other parties, or he applies the money to purposes of private speculation, thus being supplied with capital by the Virginia banks. The value of the manufactured tobacco is estimated at \$15,000,000, no small sum even in New York. The reason upon which the practice was based, when it was originated, was, that the agent sold the tobacco in New York at eight months' time, and that at the expiration of four months he could get the tobacco note, then having but four months to run, discounted in bank to meet the draft drawn on him. But the reason has ceased to exist, though the practice still continues of preferring this northern to domestic paper. It is true motives of supposed intelligence to the banks prompt also to this preference. But this was the ostensible reason, and as long as the agent kept the tobacco paper to be discounted in a New York bank, it was a satisfactory reason, it being the legitimate mode of carrying on business.

But when the sale of tobacco in New York became virtually a cash transaction, no reason of profit to the bank should have induced them to continue the discount of such paper. The results of last fall have made that fact painfully manifest to the apprehension of the most dull. Unfortunate manufacturers have had to deplore their misfortunes, brought upon them by the action of the Virginia banks, who have forced them to raise money by consigning their tobacco to a New York agent.

It was clearly manifest that the suspension of specie payments by the old banks of Virginia grew out of the non-payment of these acceptances. The loss, the reproach, and dishonor, might have been avoided but for this entanglement with New York by means of this long paper. Ought the State to allow this state of things to continue for the sake of the profit made by the banks by discounting long time northern paper? That profit consists in the premium of exchange, and the ability to *re-discount this paper in New York*. The calamities that befell the tobacco trade give a sufficient answer to that question.

But it is not intended to cast reproach upon the New York merchants who are the agents for the sale of tobacco. Many of them are honorable men, and only follow the practice in trade now existing in New York. That that practice is bad, and, with the accompanying system of time drafts, is dangerous, if not fatal, to the Virginia manufacturer, no reasonable man can doubt.

The cotton of the South is moved by means of drafts on New York or sterling bills. During the fall of 1857, owing to the unfortunate condition of the mercantile world in New York, the whole operations of our Southern banks were thrown into confusion, and the singular phenomenon

was presented of orders being received to buy cotton at 17 cents, which could not be effected, because the banks could not grant their accustomed accommodations. A Southern bank buys sterling bills, and transmits them to New York, where they are sold to bankers who desire to remit funds to Europe. This becomes to the Southern bank sight exchange. This business is in addition to its regular discounts, and if the bank fails to sell its sterling bills promptly in New York, it may be seriously inconvenienced. Conducted as our banks at the South are, the failure to sell these sterling bills in New York requires and constrains them to refuse to buy from the Southern shipper. Of course he cannot buy without the usual facilities, and cotton must go down, down far below its true value. When the suspension of the banks in New York occurred, and for some time previous, the merchants and bankers had not the power to raise money to buy these sterling bills, which suddenly fell from 110 to 90—from 15 to 20 per cent below the par of exchange. Of course this put a stop to the attempt at sale in New York, and the Southern banks could not buy of the Southern shipper, who, in his turn, could not buy of the planter. A complete paralysis seized upon the planting interest, and cotton fell from 17 to 9 cents, a loss of 8 cents a pound, \$32 per bale, and in a crop of 3,000,000 bales, a loss of \$96,000,000 to the Southern planter.

It will be observed that 17 cents for cotton was no fancy price. Cotton had sold for 11 cents just before the Russian war, and before the gold receipts from Australia and California had changed and enlarged the measures of values. This change in money made 17 cents not a high price for cotton. Besides, 17 cents for cotton was no higher than \$2 50 per bushel for wheat, which had been paid and sustained. But whether this price is to be regarded as high, it is certain that those who should be regarded as the best judges, did not so think, inasmuch as orders came from them in England to buy at that price; and yet we have seen that, from the paralysis of New York, these sterling bills could not be negotiated, and cotton fell.

The recent crisis in New York has exposed to public view the singular manner in which trade in almost every branch is carried on, and by means of which that city acquires and trades upon the capital of other communities. The operation is by no means confined to the trade in manufactured tobacco. All Europe contributes to her apparent capital, and swells the deposits in her banks. The process is a very simple one. The European manufacturer ships to a New York factor dry goods, consisting of silks, laces, &c. He is apprised that long credits must be given to insure a sale of these goods, say 8 to 12 months from day of sale. The factor disposes of these goods to the jobber, taking his paper in settlement. This paper is generally at once placed on the market and sold at market rates for money. Thus the factor is at once supplied with money, belonging, in fact, to his European correspondent, which he can use in any way he thinks proper, only taking care to be able to transmit money to Europe at the time that the notes taken for the goods fall due. The wholesale jobber repeats the same operation in his sale in like manner to the wholesale and retail merchant. Their paper is at once turned into cash, giving to the jobber great appearance of strength at his bank, and also a large cash capital, to be invested in stocks or shaving paper, or any other manner fancy or judgment may dictate. The wholesale

merchant sells in like manner to country merchants, whose paper is also thrown on the market where it is saleable. Thus, the same article, sold successively on time, furnishes the appearance of real capital to several different merchants. The same operation is repeated in the sale of the various other articles imported from Europe to this country. In like manner the manufacturers of New England furnish capital to New York. They consign their manufactures to a New York agent, and have a time draft on him discounted at their home banks. If the agent succeeds in selling the goods promptly, he has the use of the money till the maturity of the draft. Again, the money to buy this paper is not by any means contributed alone by New York capitalists. Some of the banks of South Carolina are charged with buying up the paper of Southern men through their agents in New York. Large amounts of capital are known to be sent on from Virginia and other parts of the South for the same purpose.

It will be seen how readily a commercial crisis like that of 1857 may arise from the various facts above exhibited. The twelve months preceding had been a period of unusual activity in the commercial world. Goods of almost every kind met with ready sale, and confidence being general, the notes could be converted into money at low rates. The merchants of New York found themselves thus possessed of a large capital in money, lying idle to their credit as deposits in their banks. Unhappily, too, the bubble of Western land and railroad speculation was glittering in their eyes. Fortunes were promised by these speculations long before they would have to pay their obligations. Even the cautious and prudent merchant who thought he steered clear of speculation, thought it safe to make the interest on his money by investing it until it was wanted in some first-class railroad bond. Such was the situation of New York during the spring and summer of 1857, and such her preparation for her fall payments. The banks, too, stimulated large stock speculations by the facility with which they loaned money on all kinds of stocks and bonds. Their deposits were large, and to make them profitable they must be loaned out.

At last the decline in wheat began to manifest its effects in causing Western farmers to withhold it from market. The railroads could no longer declare large dividends. In fact, from an examination of many of them, it became manifest that their charges of transportation were too low—in some cases not sufficient to pay the cost of operation. The raising of the tariff of tolls seemed a bad expedient, as the articles to be transported had also fallen so much in value. Prudent men began to see that it was a question whether even the interest on the railroad bonds would be paid. Then gradually commenced the fall in stocks and bonds—next came the breaking of the Ohio Life Insurance and Trust Company, before adverted to. Lower and lower fell securities of all kinds in the New York market. Alarm seized on the public mind everywhere. Gold was withdrawn for shipments to Europe, and the country banks, taking the alarm, commenced drawing down their deposits. Unhappily at this time a shipment of gold from California, amounting, it is said, to \$3,000,000, was lost. The deep sorrow and grief caused by the loss of the passengers and crew of that gallant steamer had soon to be well nigh forgotten by men who were struggling on land against the apprehended shipwreck of not only their capital but their mercantile character and integrity. It was easy then to predict the end. The suspension of the banks of New York was inevitable. The course of dealing in New

York, and their practice of banking on deposits of country banks, produced the inevitable effect of suspension. No expansion of loans could have prevented it. The basis of their loans was withdrawn with their specie.

It was impossible for cotton not to feel the effect of this pecuniary crisis in New York—not necessarily from the nature of things or because the temporary check to the consumption of cotton by New York could produce a decline, but because of the very singular manner in which the banks of the South assist in the movement of the crop to market. The mode which the Southern banks take for this purpose differs entirely from the practice of the banks of New York or the banks in England, in assisting the movement of their foreign exports. It is just, therefore, to call it singular; certainly the experience of the present season does not warrant the use of a more complimentary expression. There was nothing in the situation of Europe that justifies the decline in cotton that we have witnessed. The estimate of the crop of cotton is being reduced, and is obviously not sufficient to give employment to the European spindles. The fall of every other article, owing to a superabundance of production, would naturally cause a rise of that article of which there is an insufficient and diminished supply. We must, therefore, seek to explain the fall in some other manner. Most unquestionably it has grown out of the system of banking which has no parallel except in a pawn-broker's shop. A planter in the South cannot borrow money from the bank upon a pledge of his land and negroes, or on good personal security, or even upon a promise to turn over to the bank the proceeds of his crop when sold. He can, however, borrow by drawing on his factor, who sells his cotton. These drafts, from the nature of the case, fall due during the early part of the crop year. In like manner, the shipper of cotton to England cannot obtain money except by drawing a sterling bill, which is a bill payable sixty days after sight. Formerly, an advance to a planter really meant what it purports to be. Now, an advance consists in the acceptance of a draft; and if the planter's cotton is not in time to protect it, long and loud are the complaints against the dishonesty of planters in withholding their crops to meet their just debts. It is easy to see how this mode of banking affects the price of cotton and depresses it beyond its true value. No one expects to obtain anything like full value from a sale by a pawn-broker of a watch pledged for a debt, even in prosperous times. Of course, when times are bad the sacrifice is much greater. But the Southern people have made the movement of the sale of cotton dependent, in a great degree, upon the condition of affairs in New York. If there is no demand for sterling bills in New York, caused either by their want of ability or willingness to pay their debts to Europe, then our Southern banks cannot buy sterling bills, and the shipper cannot buy cotton. Even when cotton is bought and shipped, either to New York or Europe, it becomes completely in the power of the buyers to control the price of cotton. The banks, refusing to give the acceptor of the bills any accommodation, necessitates the sale of the article pledged on arrival to meet the bill at maturity. However honest he may be, and anxious to promote the interest of the consignor, necessity, having no law, he is compelled to sell at prices dictated by the buyer. How completely is this the case, and how clearly understood in its operation, may be seen from the following article from the *New York Herald*, Nov. 25, 1857:—

"The Manchester (England) Chamber of Commerce are opposed to any interference with the bank act. They think the rate of discount low enough—considering that they have no stocks of cotton on hand; and as letters from there say, 'the crop grown in the United States lies at our feet,' we can fix the prices we choose to pay, and you must accept them or go without, *as we intend to make the South pay for our losses at the North*—and we are advised that the crop will be the largest ever gathered."

The process by which this is to be effected is easy. The buyers had only to stand off until they obtain cotton at their own terms. The factor is compelled to reduce the price on every lot of cotton as it arrives until he comes to the views of the purchaser. He is not to blame for the sale. He is surely right to protect his paper, and frequently the low sale caused a serious loss to him from the price not being sufficient to cover the acceptance.

But the banks of New York, after the suspension, seemed to have turned their whole power against the cotton interest. Mercantile paper, it is true, was renewed when it was impossible to enforce payment, but their doors were shut to all new business. Prudent, sound, and wealthy merchants and agents of note-manufacturing establishments, were denied the means of carrying on their business. It was impressed upon every one that no new contracts were to be made; that the old debts were all to be liquidated before trade could receive a revival. In this manner the merchant could not sell, and, of course, could not buy from the manufacturer. The manufacturer not being able to sell, of course could not have the means of buying the raw cotton. They were thus effectually excluded as purchasers from the cotton market; and the market not having its support, fell rapidly, day by day.

But, fortunately for the South, a large part of the crop had not been advanced on, either literally or figuratively, by acceptances. The acceptances generally fall due by the first of January, and cotton was hurried forward by necessitous planters to meet their drafts at whatever sacrifice. The pressure being over in great part, planters showed both the determination and ability to hold back their crops. The South might now laugh to scorn the futile efforts of *soi dissant* Empire banks of the Empire City of the Empire State of New York. The same machinery, it is said, has frequently been brought to bear by the Bank of England, and sometimes successfully. But in 1857 it was found that no one was injured so much by it as the manufacturers of England—the manufacturers of this country being the greatest beneficiaries of their policy. Their policy was soon changed, and it was in reference to this triumph of cotton that the expression "Cotton is King" had so much force in that year. But the efforts of the New York banks to depress cotton must now succumb to a superior power. However desirable it may be for them to have a giant's power, yet they cannot use their power as a giant. Their attempt to imitate the course of the Bank of England suggests to our mind only a painful illustration of a noted fable in *Æsop*.

These banks, however, had the power of doing much to restore the American trade and commerce at an earlier day. The South alone are not the only sufferers by their policy, but the manufacturing interests of New England have suffered also still more. Instead, however, of using their means to assist the mercantile world, they have employed them in loans to stock jobbers and in buoying up the stock market. Upon stocks,

money was easy in New York. Upon common paper, the stringency is not yet removed.

It is too bad to be robbed and then taunted with our weakness. Cannot the South provide a remedy for this? Her sons are enterprising, intelligent, and sagacious; their patriotism is undoubted, and yet her prosperity is checked and she impeded in her onward march by the meshes that are thrown around her. Why should not we imitate the manner of banking in England in regard to the movements of her exports? Surely it cannot be objected that she has not experience, prudence, and wisdom to pursue the course the best for her interest. Then why not adopt it for the movement of the crops of this country?

The past cannot be recalled or corrected. It, however, cast a light that may guide us safely in the future. The South, in view of her former abject banking dependence, would do well to change her banking system, and render it and the products of the South independent of the caprices, whims and follies, and misfortunes of Northern banks. Let sterling bills be negotiated like other bills by the banks, or else let the system of buying cotton be changed so that we may be independent of New York farther than a legitimate and proper trade will justify. That this will be done, is as certain as coming event. The giant interest of the South will no longer be bound by the swaddling clothes imposed by the North. Europe will send over her manufactures directly to our Southern ports to be exchanged for the great product of the South. Direct trade will spring up—that ardent wish of all true Southern hearts—and with railways traversing every part of our fertile and luxurious country, and with “cotton—the king that weaves the destinies of nations”—the South is now entering upon a course of unparalleled prosperity.

ART. IV.—COMMERCIAL AND INDUSTRIAL CITIES OF THE UNITED STATES.

NUMBER LXXIII.

ST. LOUIS, MISSOURI.

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PRICES—AGGREGATE RECEIPTS—DEBT OF THE WEST—COURSE OF EXCHANGE—RATES FOR PAPER—
REAL ESTATE RATES—ST. LOUIS BANKS—CONFLICT ON THE CURRENCY.

THE capital of St. Louis County, the commercial capital of Missouri, and perhaps of the vast Mississippi valley, was formerly the seat of government of the State, and is one of the oldest cities of the Union. In 1664, M. D'Abbadie, the director general of Louisiana, granted to a company of merchants the exclusive right of trade with the Indians on the Missouri. The company located at the present site, twenty miles by water below the mouth of the Missouri, 196 above the mouth of the

Ohio, and 1,147 above New Orleans. The company built a large house and four stores here; and in 1770, there were forty private houses and as many families, and a small French garrison. In 1780, an expedition was fitted out at Michilimackinac, consisting of one hundred and forty British and fifteen hundred Indians, for the capture of St. Louis, and other places on the west side of the Mississippi, which was successfully repelled by the aid of an American force under Gen. George Rogers Clark, who proceeded from their encampment on the opposite side of the river. In May, 1821, the place contained six hundred and fifty-one dwellings, two hundred and thirty-two of which were brick or stone, and four hundred and nineteen of wood. The population, according to the census, has since progressed as follows:—

1769.....	891	1840.....	16,467
1785.....	897	1848.....	63,491
1788.....	1,197	1850.....	77,860
1810.....	1,680	1856.....	108,505
1820.....	4,590	1858.....	135,839
1830.....	5,861		

The census just taken for 1858, gives the result thus:—

White Males.....	70,096	Negroes.....	3,165
“ Females.....	62,078		
Total.....			135,839

Classified as follows:—

Americans.....	59,647	French.....	1,227
Germans.....	43,874	Other Nationalities.....	1,951
Irish.....	22,014	Free Negroes.....	1,681
English.....	3,451	Slave “.....	1,484
Total.....			135,839

The city is admirably situated for commerce, and already surpasses in its trade every other place on the river, north of New Orleans. The site is elevated many feet above the floods of the Mississippi, and is protected from them by a limestone bank, which extends nearly two miles; an advantage rarely enjoyed on the Mississippi, which is generally bounded by high perpendicular rocks, or loose alluvial soil. This spot has an abrupt acclivity from the river to the first bottom, and a gradual one to the second bottom. The first bank presents a view of the river, being elevated twenty feet above the highest water; the second bank is forty feet higher than the first, and affords a fine view of the city, river, and surrounding country, and contains the finest residences. The place was originally laid out on the first bank, and consisted of three narrow streets, running parallel with the river. Fortifications were erected on the second bank, as a defence against the savages. Soon after the American emigration commenced, four additional streets were laid out, back of the first, on the second bottom, which is a beautiful plain, and these streets are wide and airy. There are eight principal streets parallel to the river, crossed by over twenty running from the river, and crossing them at right angles. The whole length of the place extends in a right line five and a half miles, and by the curve of the river, six and a half miles. Its breadth may ultimately extend six miles back from the river, but is at present about one-half of that distance. The thickly settled parts are confined within much narrower limits, and extend a mile and a half

along the river, with half that breadth. Front-street is open on the side toward the river, and on the other side is a range of warehouses, four stories high, built of limestone, which have a very commanding appearance, and are the seat of a heavy business.

In First-street, the wholesale and retail dry goods stores are located, and in the streets immediately back of this are the artisans and tradesmen. The buildings are generally neat, and some even elegant. The more recent houses are built of brick, of an excellent quality, made in the immediate vicinity; some are of stone, quarried on the spot, and are generally whitewashed. Among the public buildings of the city, the city hall is a splendid edifice of brick, the basement of which is occupied as a market, at the foot of Market street, on a square reserved for that purpose.

In 1856 more than 2,500 buildings were erected, at a cost of more than seven millions of dollars. Many of the houses are magnificent structures, and would do credit to any city in the Union. But added to all this, there are other improvements which, in the aggregate, would swell that sum to at least ten millions of dollars.

The Mississippi and Illinois to the north, the Ohio and its tributaries to the southeast, and the Missouri to the west, afford St. Louis a ready access to a vast extent of country; while to the south the Mississippi furnishes an outlet to the ocean for its accumulated productions. It is the principal depot for the American Fur Company, who have a large establishment, with a large number of men in their employ. A vast amount of furs is here collected, and ten thousand dried buffalo tongues have been brought in a single year.

The limits of the city contain 9,850 acres, or an area $15\frac{1}{2}$ square miles.

The situation of the city in relation to railroads, as well as water communication with the vast circle of the upper valley and the south, as well as overland with San Francisco, makes it a focus of a future trade to which the mind can hardly fix limits. The panic of 1857 gave but a passing check to the business of the city, and the past year has shown a prompt recovery.

The report of W. B. Baker, Esq., Secretary to the Chamber of Commerce, remarks as follows:—

The demands from the South for the products of this section, already of great value, is steadily increasing under the facilities afforded by a constant transportation, and the variety and superiority of the articles needed there for consumption. Not only are the climate and soil of this region adapted to the highest cultivation of these products, but the peculiar manner in which they are prepared or received here, insures them of superior quality. Thus, the grain of this market always, except in a few occasional instances, comes forward in sacks, and by this means our city mills are enabled to secure unmixed lots of wheat, free from damp and the various defects incident to the bulk system, and thereby present flour of such a body and condition as adapts it to the high temperature of the South. Corn and oats are received in the same manner, preventing that deteriorating admixture of which, particularly in low price times, such frequent complaints are made. In proof of this, we had the statement of November last, that nearly the entire amount of spring wheat shipped by the Lake route to New York was unfit for human food, and would be taken, if taken at all, for distilling purposes only. It is apparent, there-

fore, that the better grades of grain only are shipped to this market; and it follows, of course, that any defects in the crops cannot but produce a drawback to the trade of St. Louis commensurate with the defect.

One of the most interesting events of the year 1858 was the successful accomplishment of the Overland Mail enterprise between St. Louis and San Francisco; establishing not only the practicability of the route—divergent as it is from a direct line—but giving promise under matured appointments, of lessening the contract time very materially. The first arrival was heralded at this terminus on the 9th of October, in something less than twenty-five days. The mail from this side reached the Pacific about the same time, and both achievements received appropriate attention from the two cities. At San Francisco the event was celebrated in an imposing manner, proportioned to its importance to that isolated section of the Union. It was hailed as a means of transit by which the wealth and permanent prosperity of the country could be developed; as an inducement to the speedy settlement of the immense territory lying between the eastern borders of California and Oregon, and the western lines of Kansas, Missouri, and Arkansas, (such is the language of the resolution,) and as affording facilities for and a security to emigration, which will very soon attract a vast population; as a thoroughfare within the domain of the United States, calculated to bind together the East and West, and to unite by firmer ties the States whose shores are laved by the waters of the two great oceans, and by creating a warmer sentiment of brotherhood between different sections, hitherto separated by natural barriers; as an emancipation from the thralldom of the only speedy routes hitherto available, the necessity of whose use had subjected their citizens to the dangers and privations of sea-travel and oft-repeated indignities and wrongs from semi-civilized foreign governments. The distance from St. Louis to San Francisco, by this route, was given at 2,759 miles.

To St. Louis, such an accomplishment is worthy of the highest consideration. New York, St. Louis, and San Francisco, on this great national thoroughfare (for the line of railroad to the Atlantic is in the chain) present themselves as the three great cities of the country—the principal markets of a commerce unrivaled in the extent of its domain and the variety and value of its products. Simultaneous with this great achievement was the announcement of the discovery of gold at Pike's Peak—the highest mass of the Sierra Madre. This point is nearly midway between St. Louis and San Francisco, and its precious ores seem to have been presented at this favorable moment for the purpose of inspiring the friends of a Pacific Railroad, and meeting the difficulty of distance half way. From the preparations now apparent, thousands of adventurers will doubtless seek this gold and silver region in the spring, and thus at once establish, in the heart of the wilderness beyond us, the strength, energy, and protection of a civilized community. In a brief period—for ten years only have elapsed since the incident at the mill-race of Gen. Sutter—a new State will be asking for admission into the Union, and the intermediate country, from the Mississippi to its borders, marked with continuous improvements. This market will be sought as the most available for the supplies required by new settlements, and in the end will form the gateway to the vast agricultural and mineral wealth of that immense region. It is hardly to be expected that the claim to this outlet of such inconceivable moment should be yielded to any particular local-

ity without a struggle, especially while the General Government must bear the burden of the expensive system of postal routes, and finally of a gigantic railway; and, accordingly, claims are preferred by the South and North for the terminus on the Mississippi. The Government, in this view of the case, has acted wisely, no doubt, in ordering the southern detour in the contract for the mail service, as such a course is well calculated to disarm sectional animosity, and thereby lead to an early consummation of the great requirement of the age. This spirit on the part of the Government has been further expressed in the establishment of other mail routes across the plains. Besides the principal one under consideration, the Postmaster-general, with the approval of the Executive, has established a weekly mail from St. Joseph, on the Missouri, through Utah to Placerville; and also a monthly line from Neosho, Missouri, by Albuquerque, to the Tejon Pass in California, and each has important branches. A fourth route is in contemplation, to begin at St. Paul, and pass through the Pembina settlements in the valley of the Red River of the North, and after crossing the Rocky Mountains, diverge, on the one hand to Puget's Sound, and on the other to the lower settlements in western Oregon. A year or two of experiment on these various routes will unerringly lead the public attention to the most practical one, and the great work will be commenced under the auspices of a national consent. No one, however, can be blind to the decided advantages of St. Louis in this enterprise. Pike's Peak is almost immediately west, and nearly midway between the Mississippi and the terminus on the Pacific. Should the auriferous character of the country in its vicinity turn out as productive as it has been represented, the first rail laid by the government must inevitably point in that direction. That other roads, in the course of time, will be constructed, there can be no doubt; but the first steam car across the plains (if the future can be penetrated at all by the light of present circumstances) will certainly start from this city in a line almost directly west to the salient point of the Sierra Madre adverted to. If Pike's Peak on the west, and the direct line to California beyond, are advantages for the central route to the citizens of this section, the position of St. Louis is equally as attractive to the people of the Pacific slope. There is no more advantageous point in this great valley for such a terminus. Located near the center of the Mississippi River, with its 3,000 miles of navigation and fifteen hundred steamers—with lines of packets established to every point North and South, and far up to the source of every tributary—and with railways radiating in all directions—opportunities are offered to passenger and product for almost instantaneous ingress and egress. Through this gate the world opens up with its homes and markets, accessible by the surest, cheapest, safest, and most speedy modes of transportation.

The expenditures of a young and growing city like this, must of course be large, and holders of real estate can hardly expect a taxation of a very light character. It would seem, however, from the statement of the controller that the financial condition of St. Louis is in a sound and healthy condition. The report of that officer, made in October last, shows that the amount of bonds still uncanceled is \$5,221,096—issued for the following objects:—Railroads, \$1,777,000—Water Works, 426,496—Renewing Loans, \$991,500—Harbor and Wharf, \$446,000—Public Sewers, \$398,000—Purchase of Ground, \$365,000—General Municipal Purposes, \$340,600—Old Limit Improvement, \$260,000—District Sewers, \$216,500. The

estimated receipts into the Treasury are given at \$1,170,000, as follows:— Real Estate Tax on a valuation of \$71,337,300, \$645,361—Personal Tax on a valuation of \$10,823,149, \$107,096, with Poll Tax, Merchants' Licenses, Water Rates, Harbor Rates, &c., equal to the residue. The estimate of city property is stated at \$20,080,800, of which the land item proves an important part—say, \$16,438,500. The controller observes, "the most important fact for bond-holders to know is, are we able to meet our own interest? To this question there can be but one answer—an emphatic *yes*." Various contemplated improvements are now receiving the sober consideration of the citizens, among which may be mentioned the erection of Water Works of a capacity adequate not only to the wants of the city at this time, but for a population of half a million—the pavement of the streets with iron, and the erection of city buildings commensurate with all requirements for years to come.

The amount of insurance against loss by fire on property within the city of St. Louis during the past year, as taken by the twenty local insurance companies, is in the sum of \$31,800,232. This does not include a large amount of such insurance on property within the city as has been effected within the year in other cities, and with foreign insurance companies through agents here. These last together may be estimated at not less than ten millions of dollars; thus making the total amount of such insurance on property within the city, forty-one millions eight hundred thousand two hundred and thirty-two dollars. It may be remarked that not more than three-fourths of the true value of the property in any case is insured, and in very many instances not more than one-half. Besides a very large number of buildings are uninsured—more in proportion, it is believed, than in any other city of our country. It is impracticable to ascertain the amount of the premiums derived from the above mentioned subjects of insurance. Again, it may be remarked, that of the valuable public building in this city, such as the Court House, Custom House, Marine Hospital, some of the buildings for Banking Companies, and Public School edifices, many are not insured. A better approximation is made of the premiums received for marine and other transportation of property by our local insurance companies during the past twelve months. These, by the reports made by said companies, amount to about one million and seventy-five thousand dollars, as received by seventeen of those companies. Of the premiums received by agents doing such business here for companies not of this State, it is impossible to obtain any estimate. The ports to and from whence St. Louis merchandise and other property are transported, are so numerous, and the rates of premium thereon so varied, that no appreciable estimate can be made of the value of such property. Supposing, however, that one per centum on the value thereof should be taken as the average premium, the whole value transported to and from St. Louis, as far as the same is insured in the aforesaid seventeen companies, would be in the sum of one hundred and seven millions five hundred thousand dollars.

The St. Louis *Republican* remarks:—The valuation of real and personal property in St. Louis County is shown in the annexed statement:—

City	\$78,463,375
County (outside).....	16,180,490
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Total.....	\$94,643,865

The taxes levied on this valuation are shown in the subjoined table:—

	City.	County, outside.	Total.
State tax.....	\$160,059 00	\$23,294 53	\$193,353 53
Special State tax	78,463 37	16,180 49	94,643 86
County tax.....	192,316 37½	80,902 45	473,219 32½
School tax	78,463 37	.....	78,463 37
Railroad tax	196,158 43½	40,451 22½	236,609 66½
Asylum tax.....	13,077 22	2,796 75	15,873 97
Total.....	\$918,538 27½	\$173,625 44½	\$1,092,163 71½

The interest on the funded debt of county and city is shown in the annexed:—

Interest on city debt	\$324,084
Interest on county debt.....	242,390
Total.....	\$566,474

The county interest is payable half-yearly, in July and January. The city interest is paid half-yearly, but some portions of it fall due every month in the year.

The bonded debt of the city of St. Louis was, at the last report, \$5,401,400. The bonded debt of the county of St. Louis was \$3,692,000. The bonded debt of the State is \$22,203,000, leaving the short revenue bonds out of the account. As St. Louis pays about a third of the State tax, the summary of interest liability is as follows:—

On city bonded debt.....	\$324,084
On county bonded debt.....	242,390
On share of State debt	444,060
Total.....	\$1,010,534

Upon the bonded debt of the State, as above, the interest (payable semi-annually) is \$1,332,180.

The receipts of flour and wheat at St. Louis form a very important part of the city trade.

Receipts of country flour from all sources for 1854, were 291,146 bbls.; 1855, 406,416 bbls.; and in 1856, 500,275 bbls. For 1857, 1858, and 1859, deliveries from all these sources were—

	1857.		1858.		1859.	
	Sacks.	Barrels.	Sacks.	Barrels.	Sacks.	Barrels.
By river.....	34,523	305,061	77,875	339,152	.....	193,512
Wagons .....	.....	170,761	.....	147,004	.....	135,029
Railroads	20,380	80,859	.....	179,361	.....	160,519
Total.....	54,903	556,682	77,875	665,516	.....	488,700

The city milling interest, it will be seen by the above, has prospered notwithstanding the season was thought to be unfavorable for such a result. In the quantity manufactured, instead of the expected falling off, there is a handsome increase. Flour manufacturing operations are detailed as follows:—

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	1856.	1857.	1858.	1859.
Pacific mills.....bbls.	80,000	80,000	70,000	80,000
Empire.....	75,000	55,000	65,640	85,000
Park.....	63,000	70,000	68,500	57,000
Atlantic.....	79,000	42,000	81,550	70,000
Eagle.....	.....	56,500	57,033	43,295
United States.....	79,555	50,000	99,000	145,000
Pearl.....	33,800	36,000	41,500	29,000
Franklin.....	27,000	36,000	36,000	39,000
Planters'.....	40,435	24,698	37,340	30,923
Cherry Street.....	44,960	50,753	63,220	69,725
Union.....	38,300	38,364	41,500	37,312
O'Fallon.....	29,006	4,000	10,000	42,650
Phoenix.....	15,000	15,500	11,955	10,000
Saxony.....	15,000	11,000	36,450	32,700
Camp Springs.....	19,200	19,600	14,000	20,000
Laclede.....	.....	73,133	78,982	70,000
St. George.....	.....	.....	8,144	11,841
Total.....	630,236	663,509	819,814	873,546

Their aggregate annual operations previous to the periods quoted were as follows:—

1851.	1852.	1853.	1854.	1855.
408,099	383,184	457,076	503,157	603,352

The receipts of wheat in bushels for fourteen years, estimating a barrel at three-and-a-half, and a sack at two bushels, have been as follows:—

1846.....bushels	1,838,925	1853.....bushels	2,068,893
1847.....	2,432,377	1854.....	2,340,217
1848.....	2,194,786	1855.....	3,921,197
1849.....	1,792,535	1856.....	3,967,621
1850.....	1,900,088	1857.....	3,369,617
1851.....	1,700,708	1858.....	3,881,504
1852.....	1,663,422	1859.....	3,574,222

The prices and receipts of corn have been as follows:—

	1856.	1857.	1858.	1859.
January.....	50 a 60	57 a 66	35 a 42	70 a 100
February.....	45 a 50	43 a 60	33 a 48	68 a 80
March.....	32 a 40	45 a 57	30 a 41	72 a 85
April.....	36½ a 40	47 a 60	30 a 45	68 a 82
May.....	32 a 41	61 a 100	38 a 55	78 a 75
June.....	34 a 46	65 a 95	50 a 80	75 a 97
July.....	38 a 52	68 a 79	45 a 80	75 a 100
August.....	42 a 57	55 a 74	45 a 80	60 a 95
September.....	37½ a 48	50 a 66	45 a 75	63 a 85
October.....	42 a 47	50 a 65	55 a 62	50 a 98
November.....	40 a 50	37½ a 50	53 a 81	42½ a 80
December.....	50 a 60	33 a 50	70 a 85	58 a 73

The number of bushels received in 1851 was 1,457,748; 1852, 755,258; 1853, 1,048,120; 1854, 1,734,189; 1855, 2,947,285; the last including railroad receipts of that period, which were very trifling—

	1856.	1857.	1858.	1859.
River.....sacks	469,273	1,143,414	409,354	765,867
Railroad.....	77,659	55,198	20,669	82,011

The aggregate receipts of produce by river and railroad have been as follows during the past three years:—

RECEIPTS BY RIVER—TABLE CLOSED AT NOON ON THE 31ST DECEMBER.

	1857.	1858.	1859.
Apples..... barrels	(Not reported.)		25,175
Brooms..... dozen	20,642	19,248	21,641
Bale rope..... coils	44,251	69,035	64,198
Beans, white..... sacks	5,553	11,861	....
" white..... barrels	1,561	1,947	....
" bushels.	....	....	38,536
Bran, &c.....	23,564	65,033	....
" sacks	....	....	55,844
Bacon..... casks	11,918	16,272	56,781
" tierces	707	746	388
" barrels	1,024	3,411	3,209
" boxes	1,140	849	622
" packages	795	293	274
" pieces	8,549	36,717	11,361
Barley..... sacks	82,031	92,828	72,750
Butter..... packages	6,070	6,501	10,920
Corn..... bushels	198,958	10,000	1,421,603
" sacks	1,143,414	404,354	....
Cotton yarn..... bales	12,779	7,830	5,951
Coffee..... sacks	109,051	140,165	121,835
Clover-seed..... bushels	....	....	2,156
" sacks	1,486	155	....
" barrels	89	152	....
Flour.....	305,061	339,151	193,512
" sacks	34,523	77,875	....
Flax-seed..... bushels	....	....	5,214
" sacks	2,284	5,511	....
" barrels	84	80	....
Dried fruit..... bushels	....	....	61,860
" barrels	1,822	1,344	....
" sacks	8,544	26,284	....
Gunnies..... bales	7,471	5,438	6,970
" bundles	6,588	6,793	8,890
Hemp..... bales	78,957	31,126	68,256
Hides..... pieces	128,304	174,774	170,389
" bundles	8,082	4,005	6,817
Hay..... bales	24,336	27,740	51,069
Lead..... pigs	162,555	228,020	157,265
Lard..... tierces	27,491	28,967	29,724
" barrels	27,583	31,481	14,747
" kegs	9,831	15,114	9,024
" packages	6,164	2,685	1,843
Molasses..... barrels	42,662	38,208	56,624
" half barrels	8,084	4,855	....
" kegs	4,126	2,435	15,931
" hogsheads	10,015	2,308	....
Malt..... sacks	23,243	22,216	9,830
Nails..... kegs	173,665	110,301	204,767
Oats..... sacks	563,530	709,728	....
" bushels	90,827	158,068	1,183,435
Onions..... sacks	22,784	24,730	....
" bushels	....	....	61,960
" barrels	28,560	38,080	....
Pork.....	102,376	126,950	94,047
" half barrels	450	531	....
" casks	3,252	2,929	7,530
" tierces	5,206	5,665	5,360
" boxes	495	229	717
" pieces	492,547	588,921	785,479
" tons	1,462	765	613
Potatoes..... bushels	440,799

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	1857.	1858.	1859.
Potatoes.....barrels	3,626	5,045
".....sacks	151,135	220,351
Pig iron..... tons	22,944	8,609	6,364
Rye.....sacks	15,221	24,950	90,174
Rice..... tierces	5,522	58,500	9,035
Sugar.....hogsheads	31,141	53,891	53,174
".....barrels	5,508	8,493	9,186
".....boxes	8,828	17,374	6,695
Salt.....sacks	303,170	451,275	329,280
".....barrels	45,665	43,663	36,083
Shipstuff.....sacks	20,575	20,494	....
Timothy-seed.....	1,400	1,925	4,994
Tallow.....packages	2,493	4,507	3,642
Tobacco.....hogsheads	1,107	5,612	8,141
".....packages	12,111	9,560	8,056
Wheat.....bushels	2,884,448	2,957,404	2,890,702
Wool.....bags	2,935	3,673	4,937
Whisky.....barrels	125,547	101,192	82,372

RECEIPTS BY RAILROAD—TABLE CLOSED AT NOON ON THE 31ST DECEMBER.

	1858.	1859.
Apples.....barrels	15,187	22,288
Beans.....sacks	5,906	4,299
Bacon.....packages	11,142	1,586
Bacon.....pieces	....	2,990
Butter.....packages	9,478	16,779
Barley.....sacks	53,000	43,185
Cheese.....boxes	11,963	37,318
Coffee.....sacks	....	26,337
Corn.....	20,669	92,011
Dried fruit.....	10,405	9,102
Flour.....barrels	179,361	160,159
Grease.....packages	....	515
Hemp.....bales	....	542
Hides.....pieces	25,632	46,007
Hides.....bundles	....	2,222
Hay.....cars	....	203
Hay.....bales	7,916	2,109
Hogs.....cars	1,108	845
Hogs.....head	....	3,039
Iron, pig.....tons	8,956	9,886
Lard.....barrels	....	946
Lard.....packages	....	1,980
Lead.....pigs	77,561	106,419
Oats.....sacks	56,252	40,720
Potatoes.....bushels	....	39,574
Pork.....barrels	....	8,606
Pork.....pieces	....	16,255
Rye.....sacks	....	2,511
Tallow.....packages	....	747
Tobacco.....hogsheads	794	3,835
Tobacco.....boxes	....	7,321
Wheat.....sacks	322,882	241,273
Whisky.....barrels	9,580	11,516

In relation to the finances and exchange of the past year, the St. Louis *Republican* remarks:—

The West has been unable, promptly and fully, to meet an indebtedness contracted under different circumstances. This indebtedness increased to an amount which it would not have reached, save from the temptations held out to unprofitable speculation and useless expenditure by the abund-

ance of money and ease of credit. Of that portion of the debt which was incurred prior to 1857, it is probably no exaggeration to state the balance yet due at one third. Nor has the proportion of cash sales or the soundness of the debt contracted since quite equaled the expectations of those who anticipated that the reverses of that year would lead to fewer and shortened credits. In this state of things the exchanges have been uniformly much against the West, which, being unable to meet its Eastern indebtedness with the products of the soil, has been compelled to draw largely on its stock of coin. To take the place of coin or its equivalent, has come in a circulation depreciated from three-quarters of one per cent to two per cent below the specie standard; and debts paid in that currency have had added to them the amount of this depreciation. The variations in the course of the exchanges on the East and South are shown in the following statement of rates, which conform to what is known as the "bankable fund" standard:—

		Eastern.	N. Orl'ns.			Eastern.	N. Orl'ns.
		Prem.	Prem.			Prem.	Prem.
January	5.....	$\frac{1}{4}$ a $\frac{1}{2}$	$\frac{1}{2}$ a $\frac{3}{4}$	July	6.....	$\frac{3}{4}$ a 1	$\frac{1}{4}$ a $\frac{1}{2}$
	12.....	$\frac{1}{2}$ a $\frac{1}{2}$	$\frac{3}{4}$ a .		13.....	$\frac{3}{4}$ a 1	$\frac{1}{2}$ a .
	26.....	$\frac{1}{2}$ a $\frac{1}{2}$	$\frac{3}{4}$ a 1	August	3.....	$\frac{3}{4}$ a 1 $\frac{1}{2}$	$\frac{1}{2}$ a .
February	2.....	$\frac{1}{4}$ a $\frac{1}{2}$	$\frac{3}{4}$ a 1		10.....	$\frac{3}{4}$ a 1 $\frac{1}{2}$	$\frac{3}{4}$ a .
	23.....	$\frac{3}{4}$ a .	$\frac{3}{4}$ a 1		31.....	$\frac{3}{4}$ a 1	$\frac{1}{2}$ a $\frac{3}{4}$
March	2.....	$\frac{1}{2}$ a $\frac{3}{4}$	$\frac{3}{4}$ a 1	September	21.....	$\frac{3}{4}$ a 1	$\frac{1}{2}$ a .
	9.....	$\frac{3}{4}$ a 1	$\frac{3}{4}$ a 1	October	12.....	$\frac{3}{4}$ a .	$\frac{1}{2}$ a .
	30.....	1 a .	$\frac{3}{4}$ a .		26.....	$\frac{3}{4}$ a 1	$\frac{1}{2}$ a .
April	13.....	$\frac{3}{4}$ a .	$\frac{1}{2}$ a .	November	9.....	. a 1	$\frac{3}{4}$ a $\frac{3}{4}$
May	4.....	$\frac{3}{4}$ a .	$\frac{3}{4}$ a .		17.....	$\frac{3}{4}$ a 1	$\frac{3}{4}$ a 1
	24.....	$\frac{3}{4}$ a .	$\frac{1}{2}$ a $\frac{3}{4}$		23.....	. a 1	1 a 1 $\frac{1}{2}$
	21.....	1 a .	$\frac{1}{2}$ a .	December	2.....	1 $\frac{1}{2}$ a .	1 a .
June	8.....	1 a .	$\frac{1}{2}$ a $\frac{3}{4}$		7.....	1 $\frac{1}{2}$ a .	1 $\frac{1}{2}$ a 1 $\frac{1}{2}$
	15.....	$\frac{3}{4}$ a 1	$\frac{1}{2}$ a .		14.....	1 a .	1 $\frac{1}{2}$ a .
	22.....	1 a .	$\frac{1}{2}$ a $\frac{1}{2}$		21.....	1 a .	1 $\frac{1}{2}$ a 1 $\frac{1}{2}$

An inactive trade at this point, and the absence of all speculative feeling, have tended to keep down the demand for money. This demand would have been less than it has been were it not for the necessities of those who had to meet indebtedness incurred in the past, and of those who had laid in larger stocks than experience proved the wants or paying ability of consumers warranted. The demand has been, with only occasional exceptions, fairly met by our discounting institutions. Paper has, however, been pretty closely scrutinized, but such as was approved has been done at 6 to 7 per cent, with, however, too frequently, exchange added, for the profit of the bank. To some borrowers, therefore, for what has been essentially a loan, the rate has been nearer 12 than 6 per cent. Outside of the chartered institutions the rates of discount have varied from 12 to 18 per cent. Notes secured by real estate have been sold at from 10 to 15 per cent, according to the parties and degree of security. During the present year a large amount of capital from abroad has come in for investment here, both in bank stock and in mortgages on real estate, which last have been taken ordinarily at 10 per cent, the borrower paying a commission and other charges, which bring up the rate to about 12 per cent. [The table of the weekly reports of the St. Louis banks will be found on page 219, vol. xlii., *Merchants' Magazine*.]

The distinction between the notes of the St. Louis banks and those of all the banks, the branches included, of the interior, by which these last have been, under the name of "bankable funds," at a discount in St. Louis, has

been the occasion of a good deal of angry dispute. The unwillingness of the parent banks to redeem the notes of the branches, except at a certain rate of discount, has led to a demand on the branches for gold. These demands have sometimes probably been made in a wrong temper, though they have been in sundry instances met by treatment which cannot be justified by any good citizen, and certainly is not so by the judicious friends of the banks. With a view to a settlement of the difficulty, various schemes have been proposed. The Legislature has now before it a bill looking to the redemption of country notes by the city banks, at a fixed rate, and giving the banks a privilege they have hitherto not enjoyed, of dealing to a certain extent in foreign bank-notes. The old State bank lost by receiving the bank-note currency of Illinois; though it will not be overlooked that that currency is now better secured than it was when the predecessor of the present bank dealt in it. There is, however, no great prospect of further legislation in respect to the banks at this session.

JOURNAL OF MERCANTILE LAW.

ACCOMMODATION NOTES.

In the Supreme Court of Pennsylvania. Before Judge THOMPSON. Holmes vs. Paul.

This was an action brought in the District Court for the city and county of Philadelphia, by J. W. Paul against J. Holmes, on a promissory note of the latter for \$2,500, payable to his own order, and by him indorsed. Affidavits of defence were filed; the material facts stated in them were, that the real owner of the note on which suit was brought was not James W. Paul, the plaintiff below, but John Rodman Paul; and that plaintiff below took the same without value or consideration; that both of the Pauls knew at the time when each took the note, the circumstances and terms on which it was given by Holmes, viz.: that it was an accommodation note given by him to the Union Canal Company of Pennsylvania, on the terms that that company should provide for and pay the same when it should fall due, and that Holmes would not be required to provide for the payment of it. The affidavits further set forth that John Rodman Paul, when he took it, was a manager and one of the finance committee of the company.

The District Court entered a judgment, notwithstanding the affidavits of defence, and the case was taken by writ of error to the Supreme Court.

On the part of the plaintiff in error, (defendant below,) it was contended, 1st. That the plaintiff below could not recover, because he was not the owner of the note, and that he held without value, whilst defendant below received no value, of which fact plaintiff below was informed when he took the note; citing *Mifflin vs. Roberts*, 1 Esp. 261; *Harrisburg Bank vs. Meyer*, 6 S. & R. 537; Story on Prom. Notes. § 190; Chitty's Prac. 261, note i, 260, note g. 2d. That J. Rodman Paul could not recover in this suit, though the real owner of the note, but that his recourse must be to the Union Canal Company, for the accommodation of which company the note was given, and which was bound to provide for it at its maturity, because when he took the note he was a manager or director of that company, and a member of its finance committee; that in the absence of proof to the contrary, the action of the company in not providing for the payment of the note at maturity, is to be taken to have been with the concurrence of J. R. Paul, who is also chargeable (in common with the other managers and members of the committee) with having procured the note on the terms referred

to, and he will not be permitted to take advantage of his own wrong. His legal position is the same as if the maker of the note had given it to a mercantile firm for their accommodation, and a member of that firm having full knowledge, had individually discounted the note. If payment of the note at maturity should not be provided for by the firm, the individual holder, being a member of the firm, could not recover against the maker, because it was by his default as well as that of his co-partners that the note was not taken up by them. 1 Saunders' Pl. and Ev. 587; Sparrow vs. Chisman, Chitty on Bills, 71, note q, &c.; Thompson vs. Clubley, Mee. & W. 212.

That it is contrary to the policy of the law to permit an officer, manager or agent of an incorporated company, and especially one to whom its financial interests are entrusted, to buy, discount, or speculate in accommodation or other paper belonging to the company; because if permitted, there would be a temptation to such official agents to keep the finances of the company embarrassed, in order that they might have an opportunity to make profit of its necessities. That this temptation was particularly strong in the case of the Union Canal Company, because the lenders of money to that company were exempted by special enactment from the penalties prescribed for a violation of the usury laws. (Act of Assembly, 14th April, 1846, § 2, P. L. 334; Act of 28th April, 1854, P. L. 511); Michaud vs. Girod, 4 Howard. 553-5; Parsons on Mercantile Law, 167; Story on Agency, § 211, 212, &c.; Paley on Agency, 33 to 36; Bartholomew vs. Leeck, 7 Watts, 472; Lazarus vs. Bryson, 3 Binney, 54; Campbell vs. Pennsylvania Life Insurance Company, 2 Whart. 53-74.

The opinion of the court was delivered by

TROMPSON, J.—Assuming the facts stated in the affidavit to be proved, would they amount to a defence? It has been repeatedly decided by this court, and in two cases at this term, Dornan vs. The Miners' Life Insurance Company, and Moore vs. Baird, that there is no distinction between business paper and accommodation paper negotiated. The paper in suit was of the latter kind, and this is an immaterial matter to the purchaser of it. That J. R. Paul was a member of the Union-Canal Company's Board of Directors, was a fact that did not lead him individually to perform their contracts as a corporation, much less was he bound to know that the company would not fulfill their engagement in regard to the paper, if any existed, as he became the purchaser of it before maturity, as stated in the affidavit of defence, nor was there anything wrong, or in contravention of public policy or good faith in his purchasing, simply because he was a member of the board of directors, or one of the finance committee, as it is not alleged in the affidavit that he was the agent of the company to sell the note and then became the purchaser of it. As we see no error in the judgment, it must be affirmed.

LIABILITY OF MASTER FOR DISABLED SEAMAN.

In the District Court of the United States for the District of Massachusetts. Brown vs. Overton.

SPRAGUE, J.—The libellant was a seaman, and the respondent master of the ship *Modern Times*, on a voyage from Calcutta to Boston. When about fifty days out from the landheads, the libellant, while reefing a topsail in the night time, was thrown from the yard by the sudden motion of the sail and violence of the wind, and by his fall broke both legs below the knees. There was no person on board skilled in medicine or surgery, but the master, with the aid of a passenger and one of the crew, set the bones, and secured them by bandages and splints as well as he could, and the libellant was then placed in a hammock in the forward cabin, whence, after three or four days, he was removed to the fore-castle, and there continued lying in his hammock until four days after the arrival of the ship in Boston. He was then carried to the Massachusetts Hospital. It was there found that the left leg was somewhat distorted, but this evil was corrected by the eminent surgeons of that institution. The right leg was in a much worse condition. The foot was turned out so as to be at right

angles with its natural position, and this it was found impossible to remedy. This distortion, and the deformity and disability arising therefrom, must remain for life.

There are three grounds of complaint against the master :—

First. That he did not put into St. Helena. Second. Want of proper care and attention during the passage. Third. Neglect after arriving at Boston.

As to the first : The accident happened on the 30th of March, 1858, the vessel then being twenty-five days' sail from St. Helena. There was an conversation between the master and officers and the only passenger on board, as to the necessity of going into that island; the question being whether, if they retained the libellant on board, mortification would take place in passing the equator. The master decided not to go into St. Helena, although he intended to make the island for the purpose of correcting his longitude. On the morning of the 25th of April they made St. Helena, distant about forty miles, having passed it in the night, but the wind was such that they could have reached it even then in eight or ten hours. Some question has been made as to the degree of surgical skill that could be found at St. Helena; but there is no doubt that some degree of professional skill, as well as nursing and rest, could there have been obtained, and to this the libellant was entitled. A seaman disabled in the service of a ship is to be cured at the expense of the ship. To this his right is as perfect as to food or wages. It is incumbent upon the master to furnish means of cure, and to use all reasonable exertions for that purpose. Scarcely a case can be presented where this obligation applies with greater force than the present. This seaman, at the command of his officer, had exposed his life and his limbs for the preservation of the ship. He was thrown from the yard arm, and both legs were badly fractured. There was no surgical skill on board, and the unceasing motion of the ship, and the accidents and discomforts to which he was necessarily exposed, were unfavorable to his cure. The master intended to go within sight of St. Helena, and if he had shaped his course to go into port, he might, with only a few hours detention, have consulted the American Consul, obtained surgical aid and advice, and ascertained how far it was necessary or would be useful for the libellant to be left on shore. The reason assigned by the master, since his return, for not having left this seaman at St. Helena, is that it would have occasioned expense. This presents not the least extenuation. It is merely saying that if he had performed his duty the owners would have been subjected to a burden which the law imposes.

The master ought to have gone into St. Helena, to have given to the seaman the means of cure which that place afforded, and for this neglect the libellant is entitled to recover such damages as he sustained.

As to the second ground of complaint. No blame attaches to the master during the first three or four days, nor for removing the seaman to the fore-castle. It is not shown that the cabin was a better place. After his removal to the fore-castle, the master visited him occasionally, but not often, and the steward carried him food regularly from the cabin table. This was all the attention afforded him by the master's order. No one was directed to render him any further service.

The accident happened on the 30th of March. The vessel did not arrive in Boston till the 10th of June. For more than sixty days he lay in his hammock, in the fore-castle, utterly helpless, and for a portion of the time in great pain. Yet whatever his wants or his sufferings, there was no one there whom he had a right to call upon for relief. He was left to the chance and voluntary attention of other seamen. No reason is assigned for this neglect. The ship was not short handed, and the weather during most of the passage was mild. Some one of the ship's company might have been designated to care for and watch over this disabled seaman, and relieved from his other duties except in cases of emergency. That this would have alleviated the sufferings of the libellant, there can be no doubt; how far it might have prevented the distortion of the right leg, it is impossible to state, as it cannot be known whether that misfortune was the result of the original imperfect setting of the bone or subsequent

displacement. And it is now uncertain how far it could be remedied on ship-board. I think the libelant did not receive that attention during the passage, which the master could and ought to have furnished.

The third ground of complaint is neglect after the arrival of the vessel at Boston. The ship came to anchor at that place in the afternoon of Thursday, and hauled into the wharf about one o'clock on Friday, on which day the crew were discharged and left the ship. The master left on Saturday, and did not return until Monday. No one remained by the ship but the mate, who paid no attention to the libelant, except sending him food from on shore. It rained on Saturday and Sunday. The fore-castle was a scene of confusion and discomfort, from the seamen preparing and taking away their luggage, and from rigging being put into the fore-castle, and the condition in which it was left.

On Monday the master proposed to send the libelant to the Marine Hospital at Chelsea, but at his request, and by the interposition of a friend, he was carried to the Massachusetts Hospital. It is alleged that a permit to carry this seaman to the Marine Hospital could not be obtained till Monday; but of this there is no proof, and I cannot believe that a seaman, arriving in a disabled condition, has been kept out of the Marine Hospital for three or four days from mere official formality.

But even if it had been so, it would not excuse the master. Competent surgeons were at hand, and one should have been called immediately, and suitable nursing and lodging also should have been provided at the expense of the ship, either at the Massachusetts Hospital or elsewhere. The master neither performed this duty himself, nor made report to the owners, that they might assume it, and for this omission he must be held responsible.

It remains only to determine what amount of damages shall be awarded. The libelant is entitled to indemnity for all that he has suffered from the omission of the master to go into St. Helena, and from his culpable neglect during the passage, and after arriving at Boston. The first ground is that mainly relied upon. It is insisted that the permanent deformity and disability are owing to that unjustifiable omission. The accident happened on the 30th of March. On the 25th of April, the vessel could have put into St. Helena. Were the bones of the right leg then so united and consolidated that they could not have been restored to their natural position, and the permanent distortion have been prevented? Upon this question two of the surgeons of the Massachusetts Hospital have been called as witnesses. One gave an opinion in the affirmative, and the other in the negative. The former, however, was expressed with more confidence. The latter not being unqualified.

The preponderance of evidence is in favor of the assertion that the curative process had not gone so far in twenty-six or even thirty days from the accident, but that the distortion could have been remedied by surgical skill. This, however, is doubtful. It is also uncertain what degree of surgical skill could be found at St. Helena. These doubts would have been prevented if the master had performed his duty. By going into that port it would have been ascertained what could be accomplished. Still I cannot give to the libelant the same measure of damages as if it were certain that the whole permanent injury arose from the master's default. I must make a considerable deduction by reason of the uncertainty that remains in this respect. What the libelant has certainly lost is the chance or probability of a remedy or cure, more or less complete, by being carried into St. Helena. And for this loss, as well as for what he has suffered on the minor grounds of complaint, he is entitled to a full indemnity.

Decree for \$600 and costs.

COMMERCIAL CHRONICLE AND REVIEW.

FINANCIAL IMPROVEMENT—ORGANIZATION OF CONGRESS—LARGER EXPORTS OF PRODUCE—LESS SPECIE SHIPPED—IMPORTS—DEMAND FOR MONEY—AMELIORATION OF THE MARKET—HARVESTS ABROAD—FRENCH MANIFESTO—CONTRACTION OF THE BANKS—GOVERNMENT LOANS—TABLE OF RATES—EXPANSION OF THE BANKS—ARRIVALS OF SPECIE—EXCESS OF RECEIPTS—ABSORPTION OF THE SUB-TREASURY—ASSAY OFFICE—INCREASED COINAGE—PHILADELPHIA MINT—SLACK DEMAND FOR BARS—GREATER SUPPLY OF MONEY—COINAGE IN NEW YORK—COTTON BILLS—RATES OF EXCHANGE COMPARED WITH LAST YEAR—SPECIE MOVEMENT IN ENGLAND—BUSINESS OF THE PORT—WAREHOUSING—SALES OF GOODS THIS YEAR—CURRENT OF MONEY TO NEW YORK—COTTON SUPPLY—SALES—CASH BALANCES—VALUE OF CROPS—EFFECT ON EXCHANGES.

FINANCIAL affairs have undergone a general improvement during the month. The organization of Congress imparted much more confidence to the commercial community, and the prospect of renewed large exports of produce have confirmed the tone of the markets, while the specie movement has subsided to a point less than some years at the same season. The importations of goods, as will be seen in the tables usually annexed to this article, have continued very large as compared with former years, but the demand for goods, particularly from the South, continue large, and the equivalent for the importations seems to be readily found. The rise in the value of money, which was so marked in the first week of January, became ameliorated in the second week, and from that time a general feeling of ease was manifest, in face of the fact that the sub-treasury continued to absorb money, while the disorganized state of Congress prevented the passage of any law for its disbursement. The impression became general that the organization would only be a question of time, when the usual course of affairs would be resumed. The European accounts also came in more favorably. The harvests were reported to be such as would in all probability require larger aid from the United States than in the last few years, and the political horizon became more clear, while the demonstration of the French Congress in favor of greater freedom of trade, and of course more extended intercourse and demand for industrial progress, seemed to give a guaranty of the world's peace. These were all reasons for a greater liberality on the part of lenders. There is no doubt, also, that the previous stringent action of the banks, which had curtailed two and a half millions up to the close of January, had imparted caution to dealers in their preparations for the spring trade—a circumstance which moderated the demand for money. The government being in the market for loans at the time the price was greatest, added to it in some degree. In the month of February, last year, the same circumstance occurred, viz., a sudden downward tendency in the rate for money after a pinch, caused by the government movement. The following table gives the course of the money market in this city:—

	—On call—		—Indorsed—		Single names.	Other good.	Not well known.
	Stocks.	Other.	60 days.	4 a 6 mos.			
Nov. 1st, 1858.	3 a 3½	3½ a 4½	4½ a 5	5 a 6	5 a 7	7 a 8	8 a 10
Dec. 1st.....	3½ a 4½	4 a 5	4½ a 5½	5 a 6	5½ a 7	7 a 8	8 a 10
Jan. 1st, 1859.	4 a 4½	4 a 5	4 a 5	5 a 6	6 a 7	7 a 8	8 a 10
Feb. 1st.....	5 a 6	6 a 7	5 a 6	6 a 7	7 a 7½	8 a 9	9 a 10
Mar. 1st.....	4 a 5	4½ a 6	4½ a 5½	5½ a 6½	6 a 7	7 a 8	9 a 10

	—On call.—		—Indorsed.—		Single names.	Other good.	Not well known.
	Stocks.	Other.	60 days.	4 a 6 mos.			
Apr. 1st.....	4 a 5	5 a 6	5 a 5½	6 a 6½	6½ a 7	8 a 9	9 a 10
May 1st.....	5 a 6	6 a 7	6 a 6½	6½ a 6	7 a 9	9 a 10	10 a 12
Jun. 1st.....	6 a 7	7 a 8	6½ a 7	7 a 8	8 a 9	9 a 10	10 a 12
July 1st.....	5 a 6	6 a 7	6½ a 7	7 a 7½	8 a 9	10 a 12	12 a 15
Aug. 1st.....	6 a 7	7 a 8	6½ a 7½	7 a 8	8 a 9	11 a 13	12 a 15
Sept. 1st.....	5½ a 6	7 a 8	6 a 7	7 a 7½	8 a 8½	11 a 14	12 a 16
Oct. 1st.....	5½ a 7	6 a 7	6½ a 7	7 a 8	8 a 9	10 a 12	12 a 18
Nov. 1st.....	5 a 5½	6 a 7	6½ a 7½	7½ a 8	8½ a 9½	12 a 15	12 a 18
Dec. 1st.....	5 a 5½	6 a 7	6 a 7	7 a 8½	8 a 9	9 a 10	12 a 18
Dec. 17th.....	5½ a 6	6 a 7	7 a 7½	7½ a 8½	8 a 9	9 a 10	12 a 18
Jan. 1st, 1860.	6 a 6½	6½ a 7	7 a 7½	7½ a 8½	7½ a 8	9 a 10	12 a 18
Jan 15th.....	7 a 7½	7 a 7½	8½ a 9	9 a 9½	9 a 10	10 a 11	15 a 20
Feb. 1st.....	6 a 6½	7 a 7½	8½ a 9	9 a 9½	9 a 10	11 a 12	15 a 20
Feb. 15th.....	5 a 6	6 a 7	7 a 7½	7½ a 8	8½ a 9½	10 a 12	15 a 18

The downward movement in the rates in the first week in February was aided by the expansion of the banks nearly \$1,000,000. But the receipts of money from California have been very large, while the export has been limited. The results are as follows :—

GOLD RECEIVED FROM CALIFORNIA AND EXPORTED FROM NEW YORK WEEKLY, WITH THE AMOUNT OF SPECIE IN SUB-TREASURY, AND THE TOTAL IN THE CITY.

	—1859.—		—1860.—		Specie in		Total in the city.
	Received.	Exported.	Received.	Exported.	sub-treasury.	in the city.	
Jan. 7..		\$1,052,558		\$85,080	\$7,736,965	\$25,600,699	
14.....	\$1,376,300	218,049	1,788,666	88,482	7,729,646	26,470,512	
21.....		567,398		259,400	8,352,485	27,585,970	
28.....	1,210,713	467,694	1,760,582	81,800	8,957,123	29,020,862	
Feb. 4.....		606,969		427,457	9,010,569	28,934,870	
11.....	1,319,923	361,550	1,476,621	92,350	9,676,732	29,464,299	
Total.....	3,906,936	3,273,218	5,120,469	1,034,569			

The cessation of the export of metals has left an accumulation of over \$4,000,000 since January 1—an amount which goes far towards compensating for the large shipments of the last half of the year 1859. The sub-treasury has indeed absorbed half of that coin; but the appropriation bills will, when passed, again empty the treasury into the banks, and relieve the market of a large class of borrowers who are waiting for their money. The treasury accumulation has, therefore, ceased to be a matter of anxiety. The large arrivals of coin and lessened exports have wrought a change in the operation of the assay-office as follows :—

NEW YORK ASSAY-OFFICE.

	Foreign.				United States.				Payments in	
	Gold.	Bullion.	Silver.	Bullion.	Gold.	Coin.	Bullion.	Silver.	Bars.	Coin.
Jan. 14,000	18,000	11,200	14,000	2,478,000	1,800	20,000	647,000	1,910,000		
" '59 4,000	13,000	23,380		865,000	2,500	4,120	387,000	252,000		

The deposits have exceeded those of last year by over \$2,000,000, and the quantity ordered into coin has been very large—nearly \$2,000,000. The mint at Philadelphia gives similar results, the coinage being large :—

UNITED STATES MINT, PHILADELPHIA.

	—Deposits.—		—Coinage.—			
	Gold.	Silver.	Gold.	Silver.	Cents.	Total
January.....	\$200,000	\$41,000	\$1,024,563	\$41,000	\$24,000	\$1,090,563
" 1859..	148,040	51,675	59,821	56,000	35,000	150,825

A motion is now before Congress to endow the assay-office in New York

with power of coinage. The slack demand for bars for export in January, at a time when money rose in price, induced a much larger coinage. The low rates to which exchange has fallen under the large supply of cotton bills, and in face of the large importations, indicate, to some extent, that the export of the metals was somewhat overdone in the fall. The rates are now as follows :—

RATES OF BILLS IN NEW YORK.

	December 1.	January 1.	February 1.	February 15.
London	9 $\frac{7}{8}$ a 10 $\frac{1}{8}$	9 a 9 $\frac{3}{8}$	8 $\frac{1}{2}$ a 9	8 $\frac{3}{8}$ a 9
Paris	5.12 $\frac{1}{2}$ a 5.13 $\frac{3}{4}$	5.18 $\frac{1}{2}$ a 5.17 $\frac{1}{2}$	5.20 a 5.17 $\frac{1}{2}$	5.20 a 5.17 $\frac{1}{2}$
Antwerp	5.12 $\frac{1}{2}$ a 5.13 $\frac{3}{4}$	5.17 $\frac{1}{2}$ a 5.16 $\frac{1}{2}$	5.18 $\frac{1}{2}$ a 5.17 $\frac{1}{2}$	5.18 $\frac{1}{2}$ a 5.17 $\frac{1}{2}$
Amsterdam.....	41 $\frac{1}{2}$ a 42	41 $\frac{3}{8}$ a 41 $\frac{5}{8}$	41 $\frac{1}{2}$ a 41 $\frac{1}{2}$	41 $\frac{3}{8}$ a 41 $\frac{1}{2}$
Frankfort	42 a 42 $\frac{1}{2}$	41 $\frac{1}{2}$ a 41 $\frac{1}{2}$	41 $\frac{3}{8}$ a 41 $\frac{1}{2}$	41 $\frac{1}{2}$ a 41 $\frac{3}{8}$
Bremen.....	79 $\frac{3}{8}$ a 79 $\frac{1}{4}$	79 a 79 $\frac{1}{2}$	79 $\frac{3}{8}$ a 79 $\frac{3}{8}$	78 $\frac{3}{8}$ a 78 $\frac{1}{2}$
Berlin, &c.....	73 $\frac{1}{2}$ a 73 $\frac{7}{8}$	73 $\frac{3}{8}$ a 73 $\frac{5}{8}$	73 $\frac{1}{2}$ a 73 $\frac{1}{2}$	73 $\frac{1}{2}$ a 73 $\frac{3}{8}$
Hamburg.....	36 $\frac{1}{2}$ a 37	36 $\frac{1}{2}$ a 36 $\frac{1}{2}$	36 $\frac{3}{8}$ a 36 $\frac{3}{8}$	36 $\frac{1}{2}$ a 36 $\frac{1}{2}$

This rate for sterling bills is 1 $\frac{1}{2}$ per cent lower than for the corresponding week last year, and francs are 8 centimes lower. The rate of money here last year was nearly as low as in England, while this year, through January, there has been a rise here to 7 a 7 $\frac{1}{2}$, while in London it was but 3 per cent. The disposition to send money there was consequently modified. The shipment in England continues, however, very active. The aggregate gold and silver movement has been for the year 1859 as follows :—

	Imports.		Total.	Exports.		Total.
	Gold.	Silver.		Gold.	Silver.	
1st 6 mos. £13,728,924	£9,900,080	£23,629,004	£12,036,198	£9,378,564	£22,514,732	
2d 6 mos. 12,238,956	7,280,388	19,519,344	11,233,044	7,299,078	18,532,122	
Total..	25,967,880	17,180,468	43,148,348	23,869,242	17,177,612	41,046,854

This enormous movement of over \$200,000,000 exhibits the passage of the precious metals from the producing countries, through England mostly, to the countries which produce raw produce. The silver export is nearly all to Asia, and it was derived one-half from France, in exchange for gold, and the balance mostly from the United States and Central America. The export of gold to France and the continent comprises four-sixth of the whole, and greatly exceeds the silver drawn thence, making a heavy run of its exchanges against England—a good portion of it, however, of American bills running on England, for settlement in discharge of continental goods.

The amount of business done at the port during the month has been large, as will appear by inspection of the tables annexed hereto. The imports and ware-house movement have been as follows for January :—

	1859.	1860.
Imports.....	\$18,146,255	\$19,912,862
In bond, Jan. 1.....	7,661,449	11,536,536
Entered in Jan.....	1,201,707	2,744,411
Entered coastwise.....	26,623	50,329
	\$9,189,779	\$14,331,276
Withdrawn.....	\$2,088,270	\$2,964,024
Reshipped.....	302,231	131,025
Reshipped coastwise....	88,717	93,964
	\$2,479,218	\$3,189,013
In bond, Feb. 1.....	\$6,710,561	\$11,142,263
“ “ 1858.....	22,949,622	.....

With large importation of goods, there has been a reduction of the amount in bond as compared with last. These figures do not indicate any slackness on the part of the spring trade, the more so that the pinch in the money market in January was calculated to send goods into bond, unless they were wanted immediately for sale. The imports in January, 1858, less specie, were \$7,796,147, which, added to the amount in bond, gave a supply of \$30,745,769 to February. Last year the imports and stocks were \$26,078,215, or a supply nearly \$4,000,000 less than at the same time of the previous year, when the anxiety was great to realize, in order to meet maturing obligations. The imports last year to some extent were influenced by fears that the state of the government finances would cause higher duties to be levied, hence the desire to import those goods in advance. In the present year it is observable the amount of imports and in bond reached \$33,344,138 to February. Of these there remained in bond \$11,142,263, giving sales of \$22,202,000, against \$24,825,000 same period last year, when money was much cheaper than it has been this year. With this larger amount of business done at the port, the bank loans, as will be observed in the weekly statements under that head, are \$7,000,000 less than in the first week of February last year. The current of money is, however, towards New York, and the amount of balances due Southern banks will this year probably run very high, since the cotton receipts exceed all former precedents at good prices. The receipts of the cotton crop up to the present time this year and last are as follows :

	1859.		1860.
Stock, Sept 1..... bales	101,025		149,297
Receipts.....	2,629,971		3,120,891
Supply.....	2,730,996		3,270,132
Exports.....	1,350,159	1,877,970	
U. S. consumption.....	401,157	330,805	
	<u>1,751,316</u>	<u>2,218,775</u>	
Stock on hand.....	979,680		1,061,357

The deliveries of cotton this year already give a value of \$176,000,000, or a value of \$40,000,000 in excess of last year. This large sum makes a great difference in the supply of cotton bills which have so powerfully depressed the market. The value of the stock now held is over \$54,000,000, absorbing a very considerable capital. As the season advances, and this money is liberated, in addition to the still large receipts to come in, the state of the exchanges with the South may indicate a large balance in favor of that section. The purchases of cotton by the Northern spinners have been less this year than last, when indeed they were unusually large, as a reaction from the great depression of the previous panic year. The value taken this year by the North is equal to \$18,000,000.

The business with the West presents no better promise. The disposition is still to draw funds from that region as fast as practicable; but the means of obtaining them now exist only in the products of the soil, and that produce realizes but very small prices. The terrible condition of Western currency is still impending over the market.

We annex a comparative summary of the imports of dry goods and other foreign merchandise at New York, in each January, since 1855 :—

IMPORTS AT NEW YORK FOR THE MONTH OF JANUARY.

Years.	Specie.	Dry goods.	Other.	Total.
1855.....	\$90,284	\$5,630,393	\$7,335,450	\$12,945,827
1856.....	54,364	10,686,771	4,837,939	15,578,064
1857.....	886,509	10,386,476	7,733,747	19,006,732
1858.....	309,572	2,866,144	4,930,003	8,105,719
1859.....	71,308	10,575,587	8,801,067	19,447,962
1860.....	228,050	11,770,005	9,758,284	21,756,273

The aggregate imports for the month it appears, have been very large, exceeding those even of 1857, and the increase has been mostly in dry goods. The imports, including warehousing, have been as follows:—

FOREIGN IMPORTS AT NEW YORK IN JANUARY.

	1857.	1858.	1859.	1860.
Entered for consumption.....	\$15,300,034	\$4,170,017	\$15,556,727	\$16,528,174
Entered for warehousing	1,969,266	1,909,448	1,201,707	2,744,411
Free goods.....	850,923	1,716,682	2,618,220	2,262,638
Specie and bullion.....	886,509	309,572	71,308	228,050
Total entered at the port.....	\$19,006,732	\$8,105,719	\$19,447,962	\$21,756,273
Withdrawn from warehouse.....	2,673,755	4,504,591	2,088,290	2,964,024

The quantity is again larger than last year, but the goods have arrived earlier, with a view to the opening of the Southern trade, which has been fair. The large arrivals have not prevented a reduction of the quantity in bond during the month.

The following is a comparative summary of the imports from July 1st. The total for the seven months, ending with January, is over \$17,000,000 more than the corresponding total of the previous year, as will appear from the following statement:—

FOREIGN IMPORTS AT NEW YORK FOR SEVEN MONTHS, ENDING JANUARY 31st.

	1857.	1858.	1859.	1860.
Entered for consumption.....	\$91,492,269	\$61,869,156	\$82,178,944	\$101,456,920
Entered for warehousing	23,130,143	34,137,001	14,600,973	20,353,081
Free goods.....	7,662,708	13,932,671	13,193,413	24,028,386
Specie and bullion.....	1,976,352	7,855,593	557,065	1,918,528
Total entered at the port.....	124,261,472	117,794,421	110,530,395	137,756,915
Withdrawn from warehouse.....	17,478,706	31,969,220	17,650,384	78,305,392

The January imports have enhanced the excess on the seven months, and the remaining five months of the year will no doubt show a considerable excess on the annual trade. The following table will show the proportion borne by dry goods in the January returns:—

IMPORTS OF FOREIGN DRY GOODS AT NEW YORK FOR THE MONTH OF JANUARY.

ENTERED FOR CONSUMPTION.

	1857.	1858.	1859.	1860.
Manufactures of wool.....	\$1,927,110	\$336,153	\$2,290,857	\$2,442,249
Manufactures of cotton.....	2,121,174	383,621	3,060,040	2,406,778
Manufactures of silk	3,769,596	533,080	3,071,082	4,554,640
Manufactures of flax	714,499	183,388	1,055,455	735,256
Miscellaneous dry goods.....	849,797	160,681	569,296	480,340
Total.....	\$9,382,176	\$1,596,923	\$10,026,730	\$10,619,271

WITHDRAWN FROM WAREHOUSE.

	1857.	1858.	1859.	1860.
Manufactures of wool.....	\$182,414	\$414,023	\$193,123	\$252,225
Manufactures of cotton	535,594	594,622	404,310	575,027
Manufactures of silk	322,862	616,369	126,117	331,876
Manufactures of flax.....	150,083	325,464	175,875	146,615
Miscellaneous dry goods	82,854	161,681	56,592	76,584
Total	\$1,273,807	\$2,112,159	\$955,755	\$1,381,827
Add entered for consumption....	9,382,176	1,596,923	10,026,730	10,619,271
Total thrown on market....	\$10,655,983	\$3,709,082	\$10,982,445	\$12,001,098

ENTERED FOR WAREHOUSING.

	1857.	1858.	1859.	1860.
Manufactures of wool.....	\$141,385	\$215,866	\$122,326	\$410,357
Manufactures of cotton	384,062	423,772	252,675	368,950
Manufactures of silk	273,787	425,444	104,264	249,875
Manufactures of flax	142,943	115,141	58,791	67,492
Miscellaneous dry goods	62,123	88,998	10,811	54,060
Total	\$1,004,300	\$1,269,221	\$548,857	\$1,150,734
Add entered for consumption....	9,382,176	1,596,923	10,026,730	10,619,271
Total entered at the port ...	\$10,386,476	\$2,866,144	\$10,575,587	\$11,770,005

The consumption of dry goods for the seven months of the year shows a very large increase, being larger than for the same period of any previous year:—

IMPORTS OF FOREIGN DRY GOODS AT THE PORT OF NEW YORK, FOR SEVEN MONTHS ENDING JANUARY 28TH.

ENTERED FOR CONSUMPTION.

	1857.	1858.	1859.	1860.
Manufactures of wool.....	\$14,780,180	\$12,395,372	\$14,353,737	\$17,925,715
Manufactures of cotton.....	8,985,037	5,576,268	9,176,748	11,950,149
Manufactures of silk	17,640,741	11,504,000	14,294,092	21,504,310
Manufactures of flax.....	4,501,584	2,345,427	4,297,704	5,577,833
Miscellaneous dry goods.....	4,326,426	2,557,291	2,718,388	3,869,042
Total.....	\$50,234,968	\$34,378,358	\$44,845,639	\$62,326,949

WITHDRAWN FROM WAREHOUSE.

	1857.	1858.	1859.	1860.
Manufactures of wool.....	\$2,067,759	\$4,586,012	\$2,610,972	\$2,362,047
Manufactures of cotton.....	1,265,629	1,797,956	1,091,815	1,080,439
Manufactures of silk	1,125,086	3,621,985	994,717	824,700
Manufactures of flax.....	514,267	1,085,068	849,090	560,423
Miscellaneous dry goods.....	339,905	693,523	615,339	334,061
Total.....	\$5,312,640	\$11,784,549	\$6,161,933	\$5,161,684
Add entered for consumption....	50,234,968	34,378,358	44,845,639	62,326,949
Total thrown upon market..	\$55,547,608	\$46,162,907	\$51,007,572	\$67,488,633

ENTERED FOR WAREHOUSING.

	1857.	1858.	1859.	1860.
Manufactures of wool.....	\$2,108,063	\$4,132,128	\$1,221,679	\$2,499,925
Manufactures of cotton.....	2,070,427	3,093,374	921,338	1,971,196
Manufactures of silk.....	1,349,836	3,249,066	488,977	1,072,913
Manufactures of flax.....	1,077,617	1,539,525	420,266	656,708
Miscellaneous dry goods.....	427,941	1,229,611	262,848	430,045
Total.....	\$7,033,884	\$13,235,203	\$3,315,158	\$6,630,787
Add entered for consumption....	50,234,968	34,378,358	44,845,639	62,336,949
Total entered at the port... \$57,268,852	\$47,613,561	\$48,160,797	\$68,957,736	

The total for the last seven months is 40 per cent more than for the same period of 1859.

The exports from New York to foreign ports for the month of January show an increase in domestic produce, mostly cotton. But the specie has greatly decreased :—

EXPORTS FROM NEW YORK TO FOREIGN PORTS FOR THE MONTH OF JANUARY.

	1857.	1858.	1859.	1860.
Domestic produce.....	\$4,543,842	\$4,208,306	\$3,762,182	\$5,299,142
Foreign merchandise (free).....	151,920	191,125	119,489	324,003
Foreign merchandise (dutiable)..	188,408	290,308	232,337	399,317
Specie and bullion.....	1,807,949	4,745,611	2,305,688	853,562
Total exports.....	\$6,192,116	\$9,435,350	\$6,419,696	\$6,876,324
Total, exclusive of specie ..	4,884,170	4,689,739	4,114,008	6,022,462

The total exports at the port of New York since July 1st, (exclusive of specie,) are much larger than for the same period of the two preceding years, and including specie reached a very high figure :—

EXPORTS FROM NEW YORK TO FOREIGN PORTS FOR SEVEN MONTHS, ENDING JANUARY 31.

	1857.	1858.	1859.	1860.
Domestic produce.....	\$46,021,144	\$31,559,901	\$29,131,493	\$36,793,091
Foreign merchandise (free).....	640,646	2,512,724	935,039	1,939,566
Foreign merchandise (dutiable)...	1,818,881	5,319,505	2,039,310	6,660,863
Specie and bullion.....	23,258,352	26,707,723	15,947,160	37,371,456
Total exports.....	\$71,739,023	\$66,089,903	\$48,056,002	\$79,764,976
Total, exclusive of specie... 48,480,671	39,392,180	32,108,842	42,393,520	

We also annex a comparative summary of the receipts of cash duties at the port of New York :—

CASH DUTIES RECEIVED AT NEW YORK.

	1858.	1859.	1860.
Six months ending January 1.	\$16,345,553 57	\$15,387,618 49	\$19,322,060 96
In January.....	1,641,474 59	3,478,476 38	3,898,166 17
Total seven months.....	\$17,987,028 16	\$18,866,099 87	\$23,221,227 13

The amount for the six months was rather less than for 1857, but shows a considerable recovery over the two years since the panic.

JOURNAL OF BANKING, CURRENCY, AND FINANCE.

REVENUES AND EXPENDITURES OF NEW YORK CANALS.

The Auditor of the Canal Department gives the following statement of the canal revenues. The expenditures for the last year, on all the canals for charges earned by or growing out of them, with the expenses of collections, superintendence, and *ordinary* repairs, are also stated. The condition and resources of the State in relation to the canals are presented by this brief exhibit:—

RECEIPTS DURING THE YEAR.	
From canal tolls of all the canals.....	\$1,812,280 80
From rent of surplus waters.....	2,081 67
Interest on current canal revenues, etc.....	45,517 16
	<hr/>
	\$1,859,879 63
Payments during the year.....	897,878 96
	<hr/>
Surplus revenues.....	\$962,000 67
Deficiency.....	737,999 33
	<hr/>
	\$1,700,000 00

The above surplus of \$962,000 67 is subject to the payment of \$614,263 02, the interest on the canal debt of 1846, and leaving only \$347,737 67 applicable to the principal of that debt.

The deficiency in the tolls for the fiscal year ending September 30, 1858, to meet the requirements of the Constitution, article 7, section 1, which sets apart each fiscal year \$1,700,000 to pay the interest and principal of that debt, was.....	706,647 03
Deficiency for the fiscal year, as above.....	737,999 33
	<hr/>
Total deficiency of the two years.....	\$1,444,646 36

OHIO STATE DEBT.

The message of Governor CHASE states that at the close of 1859 the entire debt of Ohio was thus constituted:—The foreign debt was \$13,621,857 20; the domestic debt was \$275,385; making the whole reducible debt \$13,897,242 20; the irreducible debt was \$2,534,076 95, and the temporary loan \$700,000, making a total of \$17,131,319 15. From this amount may properly be deducted \$288,154 already collected for part payment of the temporary loan. On the subject of the State debt Governor CHASE remarks:—

Provisions of the new constitution prohibited the increase and required the gradual extinction of the debt. An act of the last General Assembly was intended to secure that result. It authorizes, whenever any portion of the debt shall become payable, the issuing of new bonds to an amount sufficient to discharge it. Those new bonds are to be made payable in such installments that the annual levy required by the constitution will supply the means for their payment in full at maturity; and that the act requires their payment accordingly without renewal and without delay.

This plan, if persistently adhered to, will certainly extinguish the whole reducible debt; but the operation will require thirty-one years, and many circumstances may occur to suspend or frustrate its result.

DEBT OF PENNSYLVANIA.

The Governor remarks as follows in his message :—

“ When it is remembered that during this period the law reducing the State Tax upon Real and Personal Estate from three to two and a half mills has been in full force, and that nothing for the last year has been received from the Pennsylvania Railroad Company on account of tax on tonnage, making the receipts from those two sources of revenue less by four hundred thousand dollars than they were for the preceding year, it is a source of congratulation that under such circumstances a result so favorable has been produced by the ordinary operations of the Treasury.

“ For nearly two years past the State has been entirely free from the ownership or management of canals and railroads, and the gratifying result, thus far, is that her public debt is now less than it has been since the year 1842, and is decreasing at the rate of nearly one million of dollars per annum. It is now morally certain that nothing but the grossest mismanagement of the financial interests of the State can prevent its sure and speedy extinguishment.”

By the following statement, showing the amount of indebtedness of Pennsylvania, at the close of nine successive years, it will be seen that the highest point was reached in 1854. Since that period the amount has been reduced three millions fifty-nine thousand six hundred and thirty-four dollars and sixty-seven cents :—

Amount of public debt Nov. 30, 1851.....	\$40,202,226
“ “ “ 1852.....	41,524,875
“ “ “ 1853.....	41,166,279
“ “ “ 1854.....	41,698,595
“ “ “ 1855.....	41,067,994
“ “ “ 1856.....	40,701,835
“ “ “ 1857.....	39,881,738
“ “ “ 1858.....	39,488,243
“ “ “ 1859.....	38,638,961

The total reduction has been \$3,059,634.

The debt is compared as follows :—

Funded debt—6 per cent loans.....	\$400,630 00	
5 per cent loans.....	37,625,153 37	
4½ per cent loans.....	388,200 00	
4 per cent loans.....	100,000 00	
		\$38,513,983 37
Unfunded debt—Relief notes in circulation.....	\$101,218 00	
Interest certificates outstanding...	18,513 82	
Interest certificates unclaimed...	4,448 38	
Domestic creditors.....	802 50	
		\$124,977 70
Total State debt, December 1, 1859.....		\$38,638,961 07

To meet this indebtedness, the State holds the following bonds, besides which individuals are indebted to the State nearly a million and a half :—

Total amount of debt.....	\$38,638,961
Pennsylvania R. R. bonds.....	\$7,300,000
Sunbury and Erie R. R. bonds.....	3,500,000
Wyoming Canal bonds.....	231,000
Due from individuals and corporations.....	1,413,832
	\$12,494,832
Net indebtedness.....	\$26,144,128

FINANCES OF VIRGINIA.

The report of the Auditor of State gives details as follows :—

The Constitution provides “that whenever, after the first day of January, 1852, a debt shall be contracted by the Commonwealth, there shall be set apart in like manner, annually, for thirty-four years, a sum exceeding by one per cent the aggregate amount of the annual interest agreed to be paid thereon at the time of its contraction ; which sum shall be a part of the sinking fund, and shall be applied in the manner before directed.”

This debt is irredeemable for 34 years from its issue ; the amount of which created after the 1st of January, 1852, and before January 1, 1853, was.....

To 1st of Jan, 1854.....	\$2,962,687 00
“ “ 1855.....	4,571,416 87
“ “ 1856.....	4,111,884 37
“ “ 1857.....	1,405,403 09
“ “ 1858.....	2,653,570 00
“ “ 1859.....	583,060 00
To 30th Sept, 1859.....	1,866,800 00
	<u>1,226,500 00</u>
	\$19,480,321 33

Of this debt, \$1,865,000 bears 5 per cent interest, and \$17,615,321 33 bears 6 per cent interest. The Commissioners of the Sinking Fund have invested the one per cent per annum above the interest contracted to be paid on these debts to the amount of \$1,083,657 20.

The entire indebtedness of the State stands thus :—

Registered stock, 6 per cent.....	\$15,928,816 63	
Registered stock, 5 per cent.....	494,000 00	\$16,422,816 63
Coupon debt, 6 per cent.....	\$11,902,500 00	
Sterling bonds, 5 per cent.....	1,865,000 00	\$13,767,500 00
		<u>\$30,190,316 63</u>
Of this, the Commissioners of the Sinking Fund hold an investment of.....	\$1,083,657 20	
		<u>\$29,106,659 43</u>

For purposes of taxation, and to meet the requirements of the Constitution and the act creating the Commissioners of the Sinking Fund, we must provide from the accruing revenues of the State for seven per cent per annum on the old debt, exactly as though it was not reduced by redemption, to wit :—

For	\$11,971,838 30
For the new debt, including investment by the Commissioners of the Sinking Fund.....	19,480,321 33
Making.....	<u>\$31,452,159 63</u>

Thus :—

For the old debt of \$11,971,838 30	\$838 028 68
For 7 per cent on the new 6 per cent debt of \$17,615,321 33.....	1,233,072 46
For 6 per cent on the new 5 per cent debt of \$1,865,000 00.....	111,900 00
	<u>\$2,183,001 14</u>

PUBLIC DEBT OF INDIANA.

The following is a summary of the entire indebtedness of the State, foreign and domestic, by T. G. PALMER, Esq., Deputy Auditor of State:—

Internal improvement bonds outstanding	\$394,000 00
Five per cent stocks outstanding	5,323,000 00
Two and a half per cent stocks outstanding	2,054,298 50
Bonds issued to the Board of Commissioners of the Sinking Fund, under the act of December 23, 1858	1,818,219 64
Vincennes University bonds	66,585 00
Loan from the Board of Commissioners of the Sinking Fund to pay interest due July 1, 1858	165,000 00
Bonds issued to pay interest due July 1, 1859	165,000 00
Indebtedness of the General Fund to other Funds	929,675 80
Due Shelby County for an advance as revenue of 1857	2,076 63
Total	\$10,286,855 57
The indebtedness of the General Fund to the other Funds, Novem- ber 1st, 1857, was	\$929,675 80
On the 1st of November, 1857, it was	407,677 31
Increase	\$521,998 49
Add amount of two loans to pay interest	330,000 00
Add difference between balance on hand November 1, 1857, \$484,- 431 67, and November 1, 1859, \$172,672 82	311,758 85
Makes	\$1,163,757 34
As the amount of debt accumulated in consequence of the failure of the Legislature of 1857 to pass Revenue Bill	
The indebtedness of the General Fund to the other Funds, Novem- ber 1st, 1859, was	929,675 80
November 1, 1858, it was	489,779 53
Increase	\$439,896 27
Additional loan to pay January, 1860, interest	140,000 00
\$579,896 27	
Deduct difference between balance on hand November 1, 1859, (\$172,672 82) and November 1, 1858, (\$102,412 74)	70,260 08
Makes	\$509,636 19
As the amount of debt accumulated in consequence of the refusal of the Legislature of 1858, (extra session,) to act upon Gov. Wil- lard's recommendation to levy a tax for 1858.	

FINANCES OF LOUISIANA.

The report of the State Treasurer, R. A. HUNTER, makes the following exhibit of the condition of the Treasury and its operations during the year ending December 31, 1859:—

Balance in the Treasury 1st January, 1859	\$1,275,155 07
Received from all sources, from 1st of Jan. to the 21st Dec. 1859,	2,538,901 10
	\$3,814,056 17
Paid out during the same period	2,613,730 56
Balance in the Treasury	\$1,200,325 70

In his general remarks, the Treasurer speaks in gratifying terms of the improved condition of the State finances over former years, and attributes it to the amendment of the revenue law made the last year, in pursuance of his suggestion, which "has operated admirably."

All the sheriffs and tax collectors, except four, have complied with the requisitions of the amendment on or before the first five days of July. The receipts, under its operations, to the general fund alone up to the 5th of July, being \$333,000.

The sixty-ninth section of the act of 1855, exacted a forfeiture of all commissions, in case of failure to make the partial settlement required within the first five days of September. The Treasurer states that the Auditor was of the opinion this law could not be enforced, and must remain "a dead letter upon the statute book." The prompt payments, under the certain knowledge that the provisions of the law could neither be evaded nor disregarded, have refuted this position.

CITY WEEKLY BANK RETURNS.

NEW YORK BANK RETURNS.—(CAPITAL, JAN., 1860, \$69,333,632; 1859, \$68,050,755.)

	Loans.	Specie.	Circulation.	Deposits.	Average clearings.	Actual deposits.
Jan. 7	124,597,663	17,863,734	8,539,063	97,493,709	22,684,854	74,808,855
14	123,582,414	18,740,866	8,090,548	99,247,743	23,363,980	75,883,763
21	123,845,931	19,233,494	7,880,865	99,644,128	22,813,547	76,830,581
28	123,088,626	20,063,739	7,760,761	98,520,793	21,640,967	76,879,826
Feb. 4	124,091,982	19,924,301	8,174,450	99,476,430	21,898,736	77,577,694
11	123,336,629	19,787,567	8,185,109	98,146,463	21,674,908	76,471,055
10	124,206,031	20,591,189	8,050,001	100,387,051	22,061,811	78,325,240

BOSTON BANKS.—(CAPITAL, JAN., 1859, \$35,125,433; 1860, \$35,931,700.)

	Loans.	Specie.	Circulation.	Deposits.	Due to banks.	Due from banks.
Jan. 2	59,807,566	4,674,271	6,479,483	18,449,305	7,545,222	6,848,374
16	60,068,941	4,478,841	6,770,624	17,753,002	7,867,400	6,735,283
23	59,917,170	4,182,114	6,486,139	17,378,070	7,784,169	6,516,532
30	59,491,387	4,172,325	6,199,485	17,483,054	7,383,370	6,517,541
Feb. 6	50,705,422	4,249,594	6,307,922	17,900,002	7,259,703	6,656,460

PHILADELPHIA BANKS.—(CAPITAL, JAN., 1860, \$11,647,835.)

Date.	Loans.	Specie.	Circulation.	Deposits.	Due banks.
Jan. 2	25,386,387	4,450,261	2,856,601	14,982,919	2,619,192
9	25,248,051	4,453,252	2,675,623	14,161,437	2,596,212
16	25,275,219	4,561,998	2,672,730	14,934,517	2,563,449
23	25,445,737	4,514,579	2,644,191	15,064,970	2,601,271
30	25,526,198	4,535,321	2,601,750	15,401,915	2,619,573
Feb. 6	25,493,975	4,669,929	2,656,310	15,409,241	2,574,015

NEW ORLEANS BANKS.—(CAPITAL, JAN., 1860, \$18,917,600.)

	Short loans.	Specie.	Circulation.	Deposits.	Exchange.	Distant balances.
Jan. 7	25,022,456	12,234,448	12,038,494	18,563,804	7,323,530	1,557,174
14	24,928,909	12,336,735	12,417,847	18,678,233	7,410,360	1,387,704
21	24,699,024	12,821,411	12,809,512	18,664,355	7,423,629	1,377,796
28	24,916,431	12,818,159	12,882,184	19,677,121	8,144,681	1,603,763

PITTSBURG BANKS.—(CAPITAL, \$4,160,200.)

	Loans.	Specie.	Circulation.	Deposits.	Due banks.
Jan. 16	7,202,367	980,530	2,080,548	1,527,548	304,562
23	7,060,471	1,022,273	2,012,478	1,545,103	255,076
30	6,989,320	1,003,037	1,896,363	1,555,686	265,804
Feb. 6	6,984,209	997,589	1,907,323	1,609,692	230,426

ST. LOUIS BANKS.

	Exchange.	Circulation.	Specie.
Jan. 7	4,373,543	538,555	662,755
14	4,467,513	520,305	642,497
21	4,352,699	502,175	580,754
28	4,290,563	495,380	563,335

PROVIDENCE BANKS.—(CAPITAL, \$5,636,269.)

	Loans.	Specie.	Circulation.	Deposits.	Due banks.
Jan. 2	19,144,354	315,917	2,011,336	2,635,486	938,508
Feb. 6	19,144,846	326,297	1,958,540	2,566,168	921,779

CURRENCY OF JAPAN.

The *Batavia Journal of Commerce*, says the *Rotterdam Courant*, in an article translated for the *New York Herald*, in its correspondence from Decima and Nagasaki, (Japan,) contains an interesting review of the currency question in Japan—a question which has led to many complications and protests, and the total suspension of British trade with that country.

The Japanese used a metal currency from time immemorial; the princes or governors, however, to facilitate trade, issued paper, the currency of which was limited to their principalities or districts respectively. The Japanese have various gold, silver, and copper coins. Their principal coins are the gold kobang, the silver itsebu, and the copper cash.

The gold kobang is equal to 4 $\frac{1}{4}$ itsebues, according to the fluctuation in the value of silver. The intrinsic value of the gold kobang, as has been lawfully tested, is a little over ten guilders (\$4).

The silver itsebu, weighing about one-third of a Mexican dollar, has a value of about 1,600 cash, fluctuating between 1,400 and 1,800. This silver coin is very small, and its intrinsic value is far less than the amount of copper it represents; but the Japanese formerly having no foreign trade requiring the use of coin, their government could put what fictitious value on the itsebu they pleased, and no objection was ever made to it.

Copper cash is an alloy of iron and copper, and is round and thin, with a square hole in the centre. Cash is in general circulation, and the Japanese use it exclusively to pay small bills and for daily expenses.

In order to meet the requirements of the limited trade of the Dutch with Japan, another entirely new coin has been used for a number of years past, to which the name of tael was given, and a value of 1,000 cash. It is impossible to say for what purpose a new coin was created, which never had a real existence, being simply a designation of 1,000 cash.

In 1857, when, according to treaties, trade was allowed, and foreigners commenced establishing themselves at Nagasaki, a circulating medium was urgently required, and the creation of real taels was resorted to. Bills of 1,000 cash were issued by the government exclusively for the use of foreigners. The board (trading society or monopoly) formally agreed to redeem those bills with silver on demand, but never did so. They made many objections when Japanese merchants demanded silver for their bills, requiring statements as to what they sold for it, exercising in this manner some control over the trade with foreigners, putting off the redeeming in silver of those bills for weeks and months, and finally meeting their obligations under charge of a discount of from 10 to 30 per cent.

In the autumn of 1857, the Consul General of the United States concluded an arrangement with the Japanese government at Simoda, whereby Japanese silver coin was to be given to Americans for their silver in equal weight, less 6 per cent for recoinage. The same was stipulated for gold coin.

A Mexican dollar being equal in weight to three itsebues of about 1,600 cash each, the Americans received 4,800 cash for their dollar, less six per cent. This rate varied slightly in proportion to the weight of the several silver dollars.

It was not till July, 1858, that this advantage was shared in by the Dutch

residents of Decima, although certain quantities of dollars from the Dutch government's deposit had been exchanged by way of experiment. This change acted very favorable upon business: return cargoes could be purchased if silver dollars were on hand, and the expense of living, which had been excessively high, became cheap.

In October and November several English and American merchants from China arrived with large quantities of dollars, which they exchanged for paper taels at the rate of four taels, six and 4.7, (4,600 a 4,700 cash.) This enabled them to buy largely of Japanese produce, which, taken to China, yielded enormous profits.

The Japanese government in the meanwhile invented a new monetary system, one of the principal objects of which seems to have been to ignore the dollar entirely. Their action was as follows:—

The 4th of July was the date when the new treaties went into operation, and Japan agreed to furnish coin to foreigners for their coin of the same metal, according to weight, without any deduction or discount whatever; but from the outset the authorities failed to comply therewith. From the 4th of July to the 9th, included, exchange was made at the rate of \$2 for every foreigner, and on the 10th they stopped altogether—the treaty was violated. In the meantime the natives were notified that a dollar was equal to one itsebu, or one thousand six hundred copper cash; it became, therefore, impossible to pass a dollar for more. Immediately following this notification to the people of Nagasaki, foreigners were informed that the silver itsebu would cease to have currency, and a new silver coin be made in corresponding weight to a Mexican dollar. This new coin would be called ni-tsho, and pass for 1,600 cash. It is difficult as yet to form even an approximate estimate of the seriousness of this complication so suddenly brought forward by the Japanese government, and on the influence it must exercise on the many extensive time contracts with native merchants for delivery of Japan produce, in all of which, without exception, calculation of payment was made at three itsebues for a dollar, or a little over 4,800 cash. The English, American, and Dutch merchants at once protested; but what is the result? No exchange whatever, no old paper taels, no ni-tsho (which have to be coined yet, and in substitution for which the Japanese propose to issue paper ni-tshos, probably never intending to redeem them in silver,) no dollars, unless they be given away for one itsebu each, no circulating medium of any kind, and no trade, except barter to a very limited extent.

The British Consul General, Mr. Alcock, who greatly distinguished himself in China, appears to have assumed a dignified position at Jeddo in this matter, and fully to have demonstrated the outrageousness of making sudden changes in the system without any previous notice. British subjects are prohibited to trade as long as the treaty remains violated. It would further appear that Mr. Townsend Harris had also entered his protest.

The greatest anxiety is manifested in the solution of this complication.

The Japanese government officially announces that their subjects may give gold kobangs in payment. The Japanese appear, however, to be under some sort of injunction, as it is impossible to obtain a single gold kobang. It is true, they will pay in small one-eighth kobangs; but eight of these are far inferior in intrinsic value to the kobang.

STATISTICS OF TRADE AND COMMERCE.

COMMERCE OF THE UNITED STATES.

The annexed tables of the Treasury Department contain much interesting matter. The export of articles of domestic produce comparatively for the last two years, are this year of particular value. The aggregate, exclusive of specie, is larger than ever before, and the value of cotton is the most remarkable figure. It is \$30,000,000 larger than last year, while breadstuffs are nearly \$10,000,000 less. It is gratifying that, in the value of cotton manufactures, there has been a large increase of exports. The details of the exports of domestic produce have been as follows:—

PRODUCTS OF THE SEA.					
	1858		1859.		
	Quantity.	Value.	Quantity.	Value.	
Oil—sperm.....galls.	896,923	\$1,097,505	1,341,025	\$1,737,734	
“ —whale and other fish.	840,127	597,107	996,341	598,762	
Whalebone.....lbs.	1,103,301	1,105,228	1,380,465	1,233,529	
Spermaceti	168,897	66,012	126,229	46,278	
Sperm candles.....					
Fish—dried or sm'd..cwt.	161,269	487,007	299,350	642,901	
“ —pickled.....bbls.	30,470	197,441	34,918	203,760	
“ “kgs.	3,375		3,307		
Total product of the Sea		\$3,550,295		\$4,462,974	
PRODUCT OF THE FOREST.					
Staves and headings...M.	87,186	\$1,975,852	131,916	\$2,410,334	
Shingles.....M.	195,170	595,451	57,815	191,531	
Boards, planks, etc...M. ft.	217,861	3,428,530	197,099	3,317,098	
Hewn timber.....tons.	41,474	292,163	48,849	367,609	
Other lumber.....		1,240,425		1,001,216	
Oak bark and other dye.....		392,825		413,701	
Manufactures of wood.....		2,234,678		2,339,861	
Tar and pitch.....bbls.	42,675	100,679	64,256	141,058	
Rosin and turpentine.....	574,573	1,464,210	798,083	2,339,861	
Ashes, pots and pearls.cwt.	88,659	564,714	100,617	643,861	
Ginseng.....lbs.	362,053	193,736	110,426	54,204	
Skins and furs.....		1,002,378		1,361,352	
Total product of the Forest		\$13,475,671		\$14,489,406	
PRODUCT OF AGRICULTURE.					
OF ANIMALS.					
Beef.....tcs.	37,700	\$2,081,856	51,658	\$2,188,056	
“bbls.	63,257		76,518		
Tallow.....lbs.	8,283,812	824,970	7,103,046	712,551	
Hides.....No		875,753		520,539	
Horned cattle.....	28,247	1,238,769	32,513	1,345,058	
Butter.....lbs.	3,082,117	541,863	4,572,065	750,911	
Cheese.....	8,098,527	731,910	7,103,325	649,302	
Pork.....tcs.	5,693	2,852,942	3,322	3,355,746	
“bbls.	151,335		200,709		
Hams and bacon.....lbs.	20,954,374	1,957,423	11,989,694	1,263,042	
Lard.....	33,022,286	3,809,501	28,362,706	3,268,406	

Statistics of Trade and Commerce.

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	1858.		1859.	
	Quantity.	Value.	Quantity.	Value.
Hogs.....No.	96,000	810,406	95,509	550,875
Horses.....	2,154	283,371	2,295	290,250
Mules.....	2,261	244,297	2,282	258,336
Sheep.....	.....	49,319	.....	41,182
Wool.....lbs.	884,807	211,861	1,706,536	355,563
		<u>\$16,514,241</u>		<u>\$15,549,817</u>

VEGETABLE FOOD.

Wheat.....bush.	8,926,196	\$9,061,504	8,002,016	\$2,849,192
Flour.....bbls.	3,512,169	19,328,804	2,431,824	14,433,591
Indian corn.....bush.	4,766,145	3,259,039	1,719,998	1,823,103
Corn meal.....bbls.	237,637	877,692	258,885	994,269
Rye meal.....	14,283	56,235	14,432	60,786
Rye, oats, etc.....	.....	642,764	.....	1,181,170
Biscuit.....	117,244	472,372	124,844	512,910
“ .. . kegs and boxes	43,813		55,901	
Potatoes.....bush.	242,231	205,791	376,056	284,111
Onions.....	.....	75,626	.....	100,669
Apples.....bbls.	27,711	74,363	82,979	99,803
Rice.....tcs.	54,018	1,870,578	81,820	2,207,148
“ .. . bbls.	49,283		69,946	
		<u>\$35,924,848</u>		<u>\$24,046,752</u>

Cotton, Sea Island...lbs.	12,102,058	\$181,386,661	13,718,556	\$161,434,923
“ other.....	1,106,522,954		1,372,755,006	
Tobacco.....hhds.	127,670	17,009,767	198,846	21,074,038
“ .. . cases.	4,341		7,188	
“ .. . bales.	12,640		19,651	
Flaxseed.....bush.	.....	.....	5,667	8,177
Cloverseed.....	76,316	332,250	95,939	536,781
Hemp.....cwt.	419	77,875	2,409	9,219
Brown sugar.....lbs.	5,410,225	375,062	2,582,718	196,935
Hops.....	458,889	41,704	507,955	53,016
Total product of Agricul.		<u>\$201,632,408</u>		<u>\$222,909,718</u>

MANUFACTURES.

Wax.....lbs.	336,246	\$85,926	290,374	\$94,850
Refined sugar.....	1,790,895	300,724	3,976,139	377,944
Chocolate.....	10,324	2,304	16,200	2,244
Spirits (from grain) .. galls.	1,000,997	476,722	557,313	273,576
“ (from molasses) ..	3,508,071	1,267,691	2,243,308	760,889
“ (from other matr'ls)	515,667	249,432	355,752	188,746
Molasses.....galls.	290,046	115,893	181,341	75,699
Vinegar.....	200,024	24,336	265,000	35,156
Beer, ale, porter and cider..	168,719	38,649	283,620	55,675
“ .. . doz. bottles	15,692	20,883	14,808	22,551
Linseed oil.....galls.	65,398	48,225	41,998	34,194
Spirits of turpentine.....	2,457,235	1,089,282	2,682,630	1,306,035
Household furniture.....	.....	932,499	.....	1,067,197
Carriages, cars, etc.....	.....	777,921	.....	655,600
Hats.....	.....	126,525	.....	216,704
Saddlery.....	.....	55,280	.....	58,870
Candles, adamant'e, etc lbs.	3,784,557	628,599	4,299,632	671,750
Soap.....	4,738,981	305,704	6,568,101	466,215

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	1858.		1859.	
	Quantity.	Value.	Quantity.	Value.
Snuff.....	37,245	10,109	239,148	68,090
Tobacco, manufactured..	11,210,574	2,400,115	14,912,811	3,334,401
Leather.....	2,505,367	605,589	2,063,040	499,718
Boots and shoes....pairs	609,982	663,905	627,850	820,175
Cables and cordage....cwt.	18,424	212,840	31,720	320,435
Gunpowder.....lbs.	2,778,414	365,173	2,848,369	391,603
Salt.....bush.	533,100	162,650	717,257	212,710
Lead.....lbs.	900,607	48,119	313,988	28,575
Iron—pig.....cwt.	10,926	24,078	2,547	21,213
“ bar.....	6,463	26,082	13,819	48,226
“ nails.....lbs.	3,714,576	155,762	4,686,207	188,223
“ castings.....cwt.	118,305	464,415	34,076	128,659
“ other manufacture of		4,059,528		5,117,346
Copper, brass, etc.....		1,985,223		1,048,346
Medical drugs.....		681,278		796,008
Cottons—printed and col'd		2,069,194		2,820,890
“ white other than duck		1,598,136		1,302,381
“ duck.....		183,889		215,855
“ other manufacture... ..		1,800,285		4,477,096
Hemp thread.....		1,326		444
Hemp bags, etc.....		87,766		18,434
Wearing apparel.....		210,695		470,613
Earthenware, etc.....		26,783		47,261
Combs and bottons.....		46,319		46,007
Brushes and brooms.....		49,153		44,638
Billiard apparatus.....		8,791		12,094
Umbrellas and parasols..		6,339		4,837
Morocco, etc.....		13,099		41,465
Fire engines.....		7,220		3,213
Printing materials.....		106,498		68,868
Musical instruments.....		99,775		155,101
Books and maps.....		209,774		319,080
Stationery.....		229,991		299,857
Paints and varnish.....		131,217		185,068
Glassware.....		214,608		252,316
Tinware.....		24,186		39,289
Manuf. of pewter and lead.		27,327		28,782
Marble and stone.....		138,592		112,214
India rubber b'ts & shoes,pr	247,380	115,931	102,537	52,006
“ other manufactures of		197,448		146,821
Gold and silver leaf.....		26,386		35,947
Jewelry, etc.....		28,319		58,358
Artificial flowers.....		582		212
Trunks and valises.....		59,441		42,153
Lard oil.....galls.	68,342	60,958	56,675	50,793
Oil cake.....		1,435,861		1,198,581
Bricks, lime, and cement..		103,821		160,611
Unenumerated manuf's..		2,601,788		2,274,652
Total manufactures.....		\$80,242,996		\$33,853,660
Coal.....tons.	118,304	\$558,014	151,212	\$653,636
Ice.....	39,482	200,525	41,450	164,581
Quicksilver.....		129,184		
Gold and silver bullion...		22,933,206		33,329,863
Gold and silver coin.....		19,474,040		24,172,442
Raw produce not specified.		1,561,940		1,868,205
Total exports of domestic produce.....		\$293,758,279		\$335,894,385

The leading heads of these imports compare as follows since 1847—the great year of agricultural exports:—

VALUE OF EACH CLASS OF DOMESTIC EXPORTS FOR TWELVE YEARS.

Years.	Product of—			
	The sea.	The forest.	Agriculture.	Tobacco.
1847.....	\$3,468,033	\$5,996,073	\$68,450,383	\$7,242,086
1848.....	1,980,963	7,059,084	37,781,443	7,551,122
1849.....	2,547,654	5,917,994	38,858,205	5,804,207
1850.....	2,824,818	7,442,503	26,547,158	9,951,023
1851.....	3,294,691	7,847,022	24,369,210	9,219,251
1852.....	2,282,342	7,964,220	26,378,872	10,081,283
1853.....	3,279,413	7,915,259	33,463,573	11,319,319
1854.....	3,064,069	11,761,185	67,106,592	10,016,048
1855.....	3,516,894	12,603,837	42,567,476	14,712,468
1856.....	3,356,797	10,694,184	77,686,455	12,221,843
1857.....	3,739,644	14,699,711	75,722,096	20,260,772
1858.....	3,350,295	13,475,671	52,439,039	17,007,767
1859.....	4,462,974	14,489,406	39,596,569	21,074,038

Years.	Product of—		Raw produce.	Specie and bullion
	Cotton.	Manufactures.		
1847.....	\$53,415,848	\$10,351,364	\$2,102,838	\$2,620
1848.....	61,998,294	12,774,480	1,058,320	2,700,412
1849.....	66,396,967	11,249,877	935,178	956,874
1850.....	71,984,616	15,196,451	953,664	2,045,679
1851.....	112,315,317	20,136,967	1,437,893	18,069,580
1852.....	87,965,732	18,862,931	1,545,767	37,437,837
1853.....	109,456,404	22,599,930	1,835,264	23,548,535
1854.....	93,596,220	26,849,411	2,764,781	33,234,566
1855.....	88,143,844	23,833,299	2,373,317	53,957,418
1856.....	128,382,351	30,907,992	3,125,429	44,148,279
1857.....	131,575,859	30,805,126	2,103,105	60,078,352
1858.....	131,386,661	27,641,208	5,054,371	42,407,246
1859.....	161,434,923	31,579,008	4,950,974	57,611,305

The specie account is the largest, with the exception of the panic year, 1857. But perhaps the most satisfactory fact is, that the export of manufactures are larger than ever before.

The aggregate imports for several years have been as follows:—

Year.	Specie.	Free.	Dutiable.	Total.
1846.....	\$3,777,732	\$20,990,007	\$96,924,058	\$121,691,797
1847.....	24,121,289	17,651,347	104,778,002	146,548,638
1848.....	6,360,224	16,356,879	132,282,325	154,998,928
1849.....	6,651,240	15,726,425	125,479,774	147,867,439
1850.....	4,628,792	18,081,590	155,427,936	178,138,318
1851.....	5,453,592	19,652,995	191,118,345	216,224,932
1852.....	5,505,044	24,187,890	183,252,508	212,945,442
1853.....	4,201,382	27,182,151	236,595,113	267,978,647
1854.....	6,958,184	26,327,637	271,276,560	304,562,381
1855.....	3,659,812	36,430,524	221,378,184	261,468,528
1856.....	4,207,632	52,748,074	257,684,236	314,637,942
1857.....	12,461,799	54,267,557	294,160,335	360,890,141
1858.....	19,274,496	61,044,779	202,293,875	282,613,150
1859.....	7,484,789	72,286,327	259,074,014	338,768,130

The exports of domestic produce and the imports of goods have been as follows for each State:—

	Exports.		Imports.	
	1859.	1858.	1859.	1858.
Maine.....	\$2,774,418	\$2,445,162	\$2,157,056	\$1,858,392
New Hampshire.....	9,605	1,690	23,227	17,962
Vermont.....	295,659	237,688	1,803,668	2,196,088
Massachusetts.....	16,036,603	16,560,671	43,184,500	42,312,420
Rhode Island.....	292,090	409,007	1,819,068	487,816
Connecticut.....	1,130,069	1,320,527	491,067	955,105
New York.....	104,727,546	89,039,790	129,181,349	178,475,737
New Jersey.....	21,938	14,021	5,046	6,618
Pennsylvania.....	5,278,635	5,662,384	14,520,331	12,892,215
Delaware.....	49,511	106,371	529	2,821
Maryland.....	9,074,511	9,878,386	9,713,921	8,930,157
Virginia.....	6,715,133	7,262,765	1,116,193	1,079,056
North Carolina.....	435,409	541,216	168,645	174,272
South Carolina.....	17,972,590	16,924,056	1,438,535	2,071,519
Georgia.....	15,562,154	8,597,559	624,643	411,650
Alabama.....	28,933,662	21,019,266	788,164	606,942
Florida.....	3,128,650	1,877,552	286,971	194,950
Louisiana.....	100,890,689	88,270,224	13,349,516	19,586,033
Texas.....	3,855,879	2,428,169	468,162	159,293
Ohio.....	263,011	339,561	267,846	113,991
Michigan.....	3,624,624	5,168,031	1,067,339	672,934
Illinois.....	1,269,386	1,713,077	93,588	106,604
Wisconsin.....	699,088	543,280	28,961	222,930
California.....	12,405,184	12,035,393	11,163,558	8,989,733
Oregon.....	5,000	9,935	2,097	39,577
Washington Territory..	444,352	265,701	5,133	12,717
Total.....	\$385,894,385	\$293,758,279	\$338,768,130	\$282,613,150

BREMEN COTTON MARKET.

The cotton trade with Bremen in 1859 was as follows:—

	1859.	1858.	1857.
Imports.....	112,053	86,073	86,079
Stocks.....	2,444	3,477	6,921

The following are the particulars of the imports for the past year:—From New Orleans, 64,729; Galveston, 10,632; Charleston, 11,706; Savannah, 7,725; New York, 6,613; Mobile, 6,825.

The increase in consumption is apparent in the largely increased imports and small stock on hand.

Good middling is quoted at 15 ct., equal to 11.45 net in Savannah.

BANGOR LUMBER TRADE.

Amount of lumber surveyed from January 1st to December 1st, 1859, compared with the amount surveyed in 1857 and 1858:—

	1857.	1858.	1859.
Green pine.....	69,875,020	56,230,129	73,054,637
Dry pine.....	14,941,025	13,223,715	10,424,752
Spruce.....	56,735,284	62,045,696	77,432,074
Hemlock, &c.....	12,557,680	16,166,907	15,275,553
Total.....	145,109,009	147,666,447	176,187,016

About 30,000,000 more of lumber have been surveyed in Bangor during the first eleven months of the present year than in either 1857 or 1858.

BRIGHTON MARKET FOR 1859.

61,185 beef cattle, sales estimated at.....	\$3,181,620
19,045 stores.....	552,305
221,400 sheep.....	664,200
40,690 hogs.....	199,881
17,180 fat hogs.....	206,160
	\$4,803,666

For previous years see page 260, vol. xl.

BRITISH TRADE AND NAVIGATION, DISTINGUISHING LIVERPOOL IN 1858.

The Blue-Book which has just been issued by the Board of Trade, shows that the manufacturing and commercial operations of this country were not near so depressed in 1858, as a consequence of the crisis of the preceding autumn, as might have been expected. The exports, which had risen in value from £139,220,353 to £146,174,301 in 1857, fell to £139,782,779; and the imports, which had risen from £172,544,154 to £187,844,441, declined to £164,583,832. There was an increase of exports to Russia, Hanover, Belgium, Spain, Italy, Greece, Turkey, China, Central America, and Brazil; and to the Ionian Islands, Australia, (South and West only,) New Zealand, Hongkong, India, Ceylon, and Singapore. As regards commodities, the exports which increased were cotton and woolen manufactures, and a few of minor importance, as seed-oil, soda, &c. Imports increased from France, Italy, Turkey, the United States, and the west coast of South America; and from the Ionian Islands, Ceylon, and Sierra Leone. The articles which increased were cocoa, coffee, corn, cotton, hemp, rice, sugar, tallow, tea, and tobacco; but flax, hides, silk, wine, and wool declined. Notwithstanding the diminution of imports, the amount of customs duties received increased more than a million. The amount received in Liverpool was, in 1854, £3,584,578; in 1855, £3,520,913; in 1856, £3,816,076; in 1857, £3,621,409; and in 1858, £3,622,503. The declared real value of the total exports of British manufactures and produce from Liverpool was £55,173,756 in 1857, and £50,899,668 in 1858. The number of British vessels registered in the United Kingdom increased from 25,986, in 1854, to 26,658, and their aggregate tonnage from 4,184,685 tons to 4,587,893 tons; but it must be borne in mind that, in 1855, the shipping register was revised, and upwards of 1,000 vessels struck off, in consequence of having been lost or broken up in previous years, and that in May of the same year the Merchant Shipping Act established a new mode of measurement, which causes a reduction of registered tonnage, to the extent of about 7 per cent, when vessels are remeasured. Sailing vessels increased from 24,473 and 3,880,126 tons to 24,742 and 4,136,846 tons; and steam vessels from 1,513 and 304,559 tons to 1,916 and 451,049 tons. The number of men employed increased from 204,720 to 215,754, and this augmentation took place subsequently to 1856. The number of vessels entered at British ports increased from 41,591 to 48,277, and their aggregate tonnage from 9,161,366 tons to 10,961,700 tons. The number that cleared outward increased from 43,494 to 49,266, and their aggregate tonnage from 9,507,721 tons to 11,348,281 tons. Taking the tonnage inward and outward, British shipping increased from 10,744,849 tons to 12,891,405 tons, and foreign from 7,924,238 tons to 9,418,576; but if 1857 be taken for the comparison, instead of 1858, the result is still more favorable to the British flag.

The annexed table shows the quantities of foreign and colonial produce imported into Liverpool and into all the ports of the United Kingdom :—

	Liverpool.	United Kingdom.
Cocoa	1,026,207	10,388,404
Coffee	5,147,337	60,697,265
Corn—Wheat	943,768	4,241,719
Barley	42,513	1,661,392
Oats	12,242	1,856,281
Peas	25,070	157,975
Beans	134,714	412,031
Indian corn	613,964	1,750,325
Flour	1,812,063	3,856,127
Cotton	8,826,022	9,235,198
Dyes—Cochineal	3,559	22,237
Indigo	3,343	66,198
Madder	249,948	321,580
Flax	9,251	1,283,905
Fruits—Currants	145,957	382,380
Lemons and oranges	257,551	972,653
Raisins	80,062	357,485
Guano	51,524	353,541
Hemp and jute	469,084	1,638,360
Hides—Untanned	186,255	728,388
Tanned	881,043	3,885,124
Mahogany	11,681	33,481
Metals—Copper ore	34,222	97,099
Copper	2,720	6,414
Iron	1,400	25,464
Spelter	1,285	23,725
Tin	3,902	59,115
Oil—Whale	4,075	19,445
Palm	518,332	778,230
Cocoanut	4,840	197,788
Olive	10,414	25,121
Seed	1,416	9,170
Provisions—Bacon	113,380	196,685
Beef	73,656	168,498
Perk	18,347	89,741
Butter	6,061	387,566
Cheese	30,447	364,037
Lard	94,239	121,367
Rice	2,087,387	3,692,023
Saltpeter	420,525	819,206
Seeds—Clover	31,886	150,377
Flax	119,179	1,017,844
Rape	59,560	216,927
Silk, raw and thrown	102,998	6,635,845
Spices—Pepper	2,170,060	12,357,508
Pimento	3,793	42,310
Spirits—Rum	1,330,911	7,311,219
Brandy	107,791	1,064,663
Geneva	46,391	130,173
Sugar	1,734,966	9,397,635
Tallow	188,475	1,235,789
Tea	5,329,284	75,432,535
Tobacco	27,384,192	62,217,705
Wine	351,183	5,791,636
Wood	389,299	2,342,785
Wool	32,927,467	126,738,723

There are six articles of which more than half the entire imports were brought into Liverpool; namely, cotton, madder, palm oil, bacon, lard, and rice. In cocoa, coffee, hemp, hides, cocoa-nut oil, silk, spices, sugar, tallow, tea, tobacco,

wine, and wool, she is surpassed by London; in silk, also, by Southampton, and in flax by Hull. The next table shows the value of the principal articles of British manufacture and produce exported from Liverpool, and from all the ports of the United Kingdom :—

	Liverpool.	United Kingdom
Apparel and slops.....	£400,003	£1,942,358
Beer and ale.....	269,904	1,851,755
Butter.....	347,474	541,053
Coal and culm.....	283,663	3,045,434
Cotton manufactures.....	22,320,303	33,421,843
Cotton yarn.....	2,800,679	9,579,479
Earthenware.....	779,919	1,153,579
Glass.....	163,257	569,205
Haberdashery and millinery.....	1,639,684	3,462,332
Hardwares and cutlery.....	1,927,709	3,277,607
Leather manufactures.....	513,391	1,789,838
Linen manufactures.....	2,522,465	4,124,356
Linen yarn.....	399,209	1,746,340
Machinery.....	814,730	3,599,352
Metals—Iron and steel.....	3,672,282	3,875,053
Copper.....	953,606	2,699,540
Lead.....	102,373	463,289
Tin.....	1,170,258	1,621,849
Salt.....	252,658	286,222
Silk manufactures.....	551,542	1,305,399
Soap.....	114,066	209,503
Soda.....	366,291	813,727
Stationery.....	168,300	803,738
Woolen manufactures.....	5,647,447	9,776,944
Woolen yarn.....	47,347	2,966,923

The total value of the exports from Liverpool, exclusive of foreign and colonial produce, was £50,899,668, being nearly double the value exported from London, and nearly one-half the entire exports of the kingdom. London exceeded her, however, in apparel, beer, candles, cheese, fish, glass, leather, machinery, copper lead, seed oil, painters' colors, throwers' silk, spirits, stationery, refined sugar and wool; as did Hull in cotton and linen yarn, and some of the minor articles in which London exceeded Liverpool.

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**COMMERCIAL WANTS OF JAPAN.**

A correspondent from the Hague says :—We have received interesting letters on the commercial and political situation of Japan, from merchants established in the port of Kanagawa. They state that the article most in demand are tissues of all kinds, cotton prints, calicoes, flannels, camlets, and gray buckskin with small stripes sell best; then small pattern chintz, woolen cloth, Utecht velvet—red, blue, and cherry color—red shawls with blue insides, cotton and woolen blankets. Saffron is in demand, and medicinal substances, especially Peruvian bark, magnesia, etc. Glass-wares and looking-glasses are sought after, but it is feared that importations will be too extensive; the same may be said of gin. Loaf sugar would sell to advantage, imported in moderation, as would also elephant's tusks. Olive oil, tin plate, and Prussian blue are wanted. Of fancy articles, only the more useful should be sent. Sail-cloth, all colors, (white, black, and yellow,) find purchasers, the Japanese using the black most. At present, beer, wine, and butter are only wanted for victualling ships, but the natives will probably soon acquire a taste for them. The government readily pur-

chase muskets, but the Japanese are not allowed to keep fowling-pieces. Good barometers are the only philosophical instruments wanted. Cheap watches sell well; good Dutch clocks also find buyers. It is not difficult to procure back cargo; most kinds of food are cheap, and sell readily in China. Indeed, many vessels come from Shanghai in ballast, on purpose to fetch provisions. Japanese wax is not dear, being 45 francs per 50 kilogrammes, or less on buying a large quantity. Copper is also a good article to export. The exportation of the gold coin, called cobangs, is permitted, but the government does not like to see it leave the country to any amount.

#### ORANGE COUNTY MILK TRADE.

The following table shows the number of gallons of milk sent from the stations on the Erie Railroad during the past year:—

|                 |         |                |         |
|-----------------|---------|----------------|---------|
| Otisville.....  | 217,982 | Otterkill..... | 320,394 |
| Howell's.....   | 327,845 | Chester.....   | 379,541 |
| Middletown..... | 450,600 | Oxford.....    | 466,426 |
| Hampton.....    | 318,282 | Monroe.....    | 484,005 |
| Goshen.....     | 615,405 |                |         |

The number of gallons sent from stations on the Newburg Branch, we presume, is included in Chester. The aggregate from all the stations is 5,359,839.

#### FOREIGN EXPORTS AND IMPORTS AT TOLEDO.

Statement of duties collected at the port of Toledo on foreign or European goods, goods imported from the British provinces on which duties have been paid, and the value of free goods imported from the British provinces, and the value of exports to the same from the first of January, 1855, to January 1st, 1860:—

|           | Duties collected. | Value of imports. | Value of exports. |
|-----------|-------------------|-------------------|-------------------|
| 1855..... | \$125,616 40      | \$7,239           | \$125,364         |
| 1856..... | 87,855 80         | 16,393            | 388,479           |
| 1857..... | 17,877 78         | 14,472            | 108,479           |
| 1858..... | 17,950 38         | 15,413            | 35,033            |
| 1859..... | 15,526 50         | 2,506             | 29,488            |

#### TRADE IN NAVAL STORES AT NEW YORK.

|             | Receipts.        |                             |         |        | Exports.         |                             |         |        |
|-------------|------------------|-----------------------------|---------|--------|------------------|-----------------------------|---------|--------|
|             | Turpen-<br>tine. | Spirits<br>turpen-<br>tine. | Rosin.  | Tar.   | Turpen-<br>tine. | Spirits<br>turpen-<br>tine. | Rosin.  | Tar.   |
| 1859..bbls. | 96,654           | 161,110                     | 653,428 | 54,092 | 88,699           | 66,551                      | 57,969  | 19,604 |
| 1858.....   | 104,851          | 142,324                     | 568,291 | 33,125 | 93,066           | 57,657                      | 445,311 | 13,518 |
| 1857.....   | 76,443           | 126,006                     | 551,918 | 52,684 | 78,850           | 50,021                      | 447,480 | 37,724 |
| 1856.....   | 85,413           | 118,325                     | 479,248 | 61,043 | 81,460           | 37,538                      | 383,133 | 21,784 |
| 1855.....   | 99,670           | 132,142                     | 534,396 | 72,664 | 97,252           | 47,846                      | 460,060 | 55,594 |
| 1854.....   | 126,152          | 125,515                     | 498,363 | 67,792 | 135,614          | 46,200                      | 449,304 | 53,312 |
| 1853.....   | 143,525          | 117,337                     | 397,174 | 67,575 | 135,175          | 26,318                      | 308,769 | 14,560 |
| 1852.....   | 189,711          | 81,595                      | 293,161 | 37,067 | 193,401          | 7,481                       | 227,669 | 15,299 |
| 1851.....   | 170,060          | 76,579                      | 287,145 | 39,147 | 147,880          | 6,436                       | 169,520 | 23,694 |
| 1850.....   | 148,561          | 74,060                      | 275,473 | 55,613 | 140,611          | 7,863                       | 174,062 | 26,268 |

#### EXPORTS OF THE YEAR 1859.

|                                       | Turpen-<br>tine. | Spirits<br>turpentine. | Rosin.  | Tar.   |
|---------------------------------------|------------------|------------------------|---------|--------|
| Exports to<br>Great Britain.....bbls. | 79,349           | 34,817                 | 302,988 | 14,970 |
| France.....                           | none.            | 20                     | 5,504   | none.  |
| North of Europe.....                  | 9,236            | 25,519                 | 215,518 | 205    |
| Other Europe, &c.....                 | 114              | 6,195                  | 43,959  | 4,429  |
| Total.....                            | 88,699           | 66,561                 | 567,969 | 19,604 |

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**NAUTICAL INTELLIGENCE.**


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**LIGHTHOUSE AT CAY LOBOS, GREAT BAHAMA BANK.**

Official information has been received at this office, that on the night of the 31st of March, 1860, and every night thereafter, a light will be exhibited from sunset to sunrise at the lighthouse now in course of erection at Cay Lobos, situated in the old Bahama Channel, on the southwestern edge of the Great Bahama Bank. The light will be a fixed white light, to illuminate 360 degrees, placed at an elevation of about 146 feet above high water mark, and in clear weather should be seen from a distance of 16 miles. The illuminating apparatus is catadioptric, of the power usually known as the first order of Fresnel's system. The tower is circular, painted with broad red and white horizontal bands, having the base surrounded by the keeper's dwelling, arranged in the form of a decagon. By order,

WASHINGTON, January 25, 1860.

R. SEMMES, Secretary.

**FIXED LIGHT AT CALELLA, COAST OF SPAIN.**

Official information has been received at this office that the Minister of Marine at Madrid has given notice that on and after the 15th December, 1859, a light would be exhibited from the light-tower recently erected on the hill of the Torreta, in the province of Barcelona, on the south coast of Spain. The light is a fixed white light, varied by a flash every two minutes. It is elevated 166 feet above the mean level of the sea, and should be visible in ordinary weather a distance of 18 miles. The illuminating apparatus is dioptric or by lenses of the 3d order. The light-tower is cylindrical, colored white, and rises 13 feet above the adjoining dwellings of the light-keepers. It stands about half a mile to the westward of Calella village, and 57 yards from the margin of the sea. Its position is given as latitude  $41^{\circ} 36' 40''$  north; longitude  $2^{\circ} 39' 38''$  east of Greenwich.

**BUDA ISLAND, MOUTH OF THE RIVER EBRO.**

Also, that from a recent survey, it was found that the east point of the island of Buda, at the mouth of the river Ebro, province of Barcelona, had advanced considerably (it is said 4 miles) to the eastward beyond that marked in the Spanish chart of the year 1833. From the east point Coll de Balaguer Castle bears N.  $13^{\circ}$  E., Merla Tower N.  $10^{\circ}$  W., Vendrell N.  $54^{\circ}$  E., and the south part of the Sierra de Monsia N.  $54^{\circ}$  W. The bearings are magnetic. Variation  $18^{\circ}$  west in 1859. By order,

WASHINGTON, January 20, 1860.

R. SEMMES Secretary.

**FIXED LIGHT ON EAST POINT, RIO DE LA PLATA.**

Information has been received at this office that the Minister of War and Marine at Montevideo has given notice, that on and after the 1st day of March, 1860, a light will be exhibited from the lighthouse erected on East Point, forming the eastern side of Maldonado Bay, on the north side of the entrance to the Rio de la Plata. The light will be a fixed white light, elevated 152 feet above the mean level of the sea, and visible in clear weather from a distance of about 20 miles. The illuminating apparatus will be dioptric, or by refracting lenses. The light tower is 90 feet high, and stands in latitude  $34^{\circ} 58'$  S., longitude  $54^{\circ} 56'$  west of Greenwich.

**DISCONTINUANCE OF LIGHT ON LOBOS ISLAND.**

Also, that on and after the above date, the light at present exhibited from the lighthouse on Lobos Island will be discontinued. By order,

WASHINGTON, January 12, 1860.

R. SEMMES, Secretary.

**NEW LIGHTHOUSE ON SHIP SHOAL, COAST OF LOUISIANA.**

DISCONTINUANCE OF SHIP SHOAL LIGHT-VESSEL.

Official information has been received at this office from Lieut. W. H. STEVENS, Corps Engineers, Engineer of the Ninth Lighthouse District, that the new lighthouse at Ship Shoal has been completed. It will be lighted for the first time at sunset on the evening of Wednesday, the 29th day of February next, and will be kept burning during that night and every night thereafter. This new lighthouse is an iron screw pile structure in the form of a truncated pyramid. The tops of the piles are five feet above the water, and the dwelling, which is of boiler iron, has its floor 20 feet above the water. The color of the tower is brown. The focal plane is 110 feet above the mean sea level. The illuminating apparatus is a second order lens of the system of Fresnel, showing bright flashes at intervals of 30 seconds, which should be visible, in ordinary weather, from a distance of 17 nautical miles. The approximate position of the lighthouse is, latitude  $28^{\circ} 55' 6''$  north; longitude  $90^{\circ} 55' 56''$  west of Greenwich. The light-vessel at this station has been discontinued, and a temporary light will be shown from the lighthouse until the date above given, viz.:—February 9, 1860. By order,

W. F. SMITH, Engineer, Secretary.

WASHINGTON, January 25, 1860.

**FIXED LIGHT ON GRINDSTONE ISLAND, BAY OF FUNDY.**

Information has been received at this office that the light is exhibited from the light-tower recently erected on the western point of Grindstone Island, on the New Brunswick shore, at the head of the Bay of Fundy. The light is a fixed white light, placed at an elevation of 60 feet above high water, and visible in clear weather from a distance of 12 miles. The rise of tide at springs is about 48 feet. The light-tower is octagonal, and painted white. It stands in latitude  $45^{\circ} 43' 13''$  N., and longitude  $64^{\circ} 37' 25''$  west of Greenwich; and from it Cape Enrage lighthouse bears S. W. by W. 10 miles. The keeper's dwelling is about 50 feet to the eastward of the light-tower, and is also painted white. The bearings are magnetic; variation  $19\frac{1}{2}^{\circ}$  W. in 1859. By order,

R. SEMMES, Secretary.

WASHINGTON, January 12, 1860.

**FIXED LIGHT ON I CANI, OR THE DOG ROCKS, COAST OF TUNIS.**

Official information has been received at this office, that the Minister of Marine of the Beylik of Tunis has given notice, that on and after the 1st day of January, 1860, a light would be exhibited from the lighthouse recently erected on the rocks known by the name of I Cani, Al khelb, or the Dog Rocks, on the coast of Tunis. The light will be a fixed white light, placed at an elevation of 129 feet above the level of the sea, and should be visible, in clear weather, from a distance of 17 miles. The illuminating apparatus is dioptric, or by lenses of the second order. The light-tower is circular, with a square base, 70 feet high, and colored white. It stands on the summit of the chief islet in latitude  $37^{\circ} 21' N.$ , longitude  $10^{\circ} 4' 39''$  east of Greenwich. By order,

R. SEMMES, Secretary.

WASHINGTON, January 9, 1860.

**NEW LIGHT AT OSTEND, KINGDOM OF BELGIUM.**

Official information has been received at this office, from the Minister of Foreign Affairs for the kingdom of Belgium, that the new lighthouse recently constructed at Ostend will be lighted for the first time on the first day of January next. The illuminating apparatus is a catadioptric lens of the first order. The light is a fixed white light, and the focal plane being elevated 188 English feet above the level of the sea, the light should be visible, in clear weather, at a distance of 20 nautical miles. This lighthouse stands in latitude  $51^{\circ} 14' 25''$  north, and longitude  $2^{\circ} 55'$  east of Greenwich. The old light near this point will be discontinued upon the exhibition of the new one. By order,

R. SEMMES, Secretary.

WASHINGTON, December 30, 1859.

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**COMMERCIAL REGULATIONS.**


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**MANUFACTURES OF WOOD AND METAL—PATENT SLATES.**

TREASURY DEPARTMENT, January 9, 1860.

SIR :—I have examined your report under date of the 10th ultimo, together with letter of Willy Wallach, Esq., appealing from your decision as to the rate of duty imposed on an importation of "patent slates." The article in question, it seems, is an iron plate coated with a preparation of powdered slate, and set in a wooden frame, and is used for the same purposes as mineral slates, in counting rooms and schools. You appear to have assessed duties at the rate of 24 per cent on the merchandise in this case, under the classification in schedule C of "manufactures, articles, vessels, and wares not otherwise provided for, of brass, copper, gold, lead, iron, pewter, platina, silver, tin, or other metal, or of which either of those metals, or any other metal, shall be the component material of chief value." The metal being the material of chief value, you assigned the merchandise to that classification. The importer claims entry at the rate of 19 per cent, under the classification in schedule D of "roofing slates, and slates other than roofing slates." In the opinion of the Department that classification refers only to articles of the mineral known as "slate," and cannot be made to embrace iron plates merely coated with mineral powder, and that the merchandise was properly subjected by you to a duty of 24 per cent, under the classification in schedule C to which you referred to. I am, very respectfully,

HOWELL COBB, Secretary of the Treasury.

AUGUSTUS SCHELL, Esq., Collector, &c., New York.

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**SILK.**

TREASURY DEPARTMENT, January 18, 1860.

SIR :—The Department has had under consideration an appeal from Mr. J. W. Hall, from your decision subjecting an article of silk, described by him as tram or orgazine, to a duty of 19 per cent, under the classification in schedule D of "manufactures of silk or of which silk shall be a component material not otherwise provided for," the importer claiming entry thereof at a duty of 12 per cent, under the classification in schedule F of "silk raw, not more advanced in manufacture than singles, tram and thrown, or orgazine." On examination of a sample of the merchandise in question, the article would seem to belong to silk in that condition known as orgazine, but it cannot, in the opinion of the Department, be regarded as "raw," it having been purified from the gum, and dyed, and can be used, it is believed, without further manufacture, for weaving and other purposes. It cannot, therefore, fall within the provision in schedule F, as that is expressly limited to "raw" silk, but is to be regarded as embraced in the classification in schedule D, of "manufactures of silk or of which silk shall be a component material not otherwise provided for," and as such liable to a duty of 19 per cent. Your decision is affirmed. I am, very respectfully,

HOWELL COBB, Secretary of the Treasury.

A. W. AUSTIN, Esq., Collector, &c., Boston, Mass.

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**OATS.**

TREASURY DEPARTMENT, January 24, 1860.

SIR :—The Department has had under consideration an appeal from your decision assessing duty at the rate of 15 per cent on certain oats imported by Messrs. Ravenel & Co. The oats in question were imported from Stockholm, and were charged with a duty of 15 per cent, under the classification in schedule E of the tariff of 1857, of "oats and oatmeal." The importers claim to enter them as "seeds" free of duty, under the classification in schedule I of "garden seeds, and all other seeds for agricultural, horticultural, medicinal, or manufacturing purposes not otherwise provided for," having imported them, as they allege, for

agricultural purposes exclusively. To this you reply that "oats" are "provided for" by name in schedule E, at a duty of 15 per cent., and that they are, therefore, not embraced in the classification of seeds in schedule I. In this view the Department concurs. It was the practice under the tariff of 1846, containing, substantially, the same provision in relation to seeds as now exists, to admit "wheat," and perhaps other articles, though provided for in dutiable schedules, free of duty, if imported in small quantities exclusively for agricultural purposes. But on a very full and careful consideration of the subject, the Department does not feel at liberty, when an article, as in the present case, is clearly provided for in a dutiable schedule, to make any exception or qualification, not expressly authorized by law, to carry it into the free list. Your assessment of duty in this case, at the rate of 15 per cent under schedule E, is affirmed. I am, very respectfully,

HOWELL COBB, Secretary of the Treasury.

WM. F. COLCOCK, Esq., Collector, &c., Charleston, S. C.

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GUBAN GUANO.

The following official letter from C. DE RONCENAY, Consul at Porto Rico, dated San Juan, January 15, 1860, is of interest:—

I have been officially informed that, by a very recent decree, the Spanish government has directed the Captain-General of this island to send to the Spanish Consul in England fifteen tons of the guano or fertilizer from the islands of Mona and Monita, lying off the western part of the Puerto Rico, and also fifteen tons to the Governor of Cadiz, with a view of its distribution, and in order to test its character and quality as a fertilizer or guano, and its value in Europe.

I have thought it proper to communicate this fact to the Department, because citizens of the United States, on several occasions, the last one within a few weeks, have made application to the Captain General for the privilege of working these islands, upon the payment of a stipulated consideration therefor, without success.

To the last petition or application, dated February 10, 1859, made by an agent of the house of Patterson & Mergrunds, Baltimore, the Captain-General, under date of December 13, replies:—

"Her Majesty denied another petition of the same kind, presented by George Latimer, Esq.; and, having ordered an examination, to ascertain the quality of said guano, both on the island of Mona as well as on that of the Monita, the process of which has not been as yet terminated, it is not in my power to accede to your petition without previous superior orders."

The applicants in this case solicited the sale of the guano or fertilizer that existed on the island of Mona, proposing to purchase it for a round sum of money or by the ton; or, if the government preferred, to pay for it, according to its true value, in bills on the United States, England, France, or in cash in this island. For the better information of the government in its sale, the application was accompanied by various analyses of the Mexican guano, which, as respects its component parts, is more or less equal to the guano of the Mona island, the former selling for, or reaching in the United States, twelve dollars per ton, including freight and other expenses from Mexico.

For the further information of my government, and of those persons who have made inquiries touching the guano on the islands referred to, it may be proper for me to add, that no steps have as yet been taken to carry out the royal decree in the shipment of guano as aforesaid, and it is believed that considerable delay will take place in the execution of the royal order, in consequence of the difficulties apprehended in bringing the guano to this port for transshipment, and consequently that some time must elapse before its character, quality, and virtue can be known and fixed in Europe, and likewise as to the determination of the Spanish government as to what disposition it will make of it hereafter.

JOURNAL OF INSURANCE.

TENEMENT RISKS.

We extract the following just remarks from the *Wall-Street Underwriter*. The subject is one well worthy of consideration. The insurance of the tools and furniture of the working man, has a relation to the general insurance of property, like sixpenny saving banks to those of larger accumulation, and the great success and utility of those institutions is no longer an open question. The amount of his savings that a working man invests in tools and furniture bears a very large proportion to his income, and their loss by fire is a severe infliction, what years of industry in some cases will hardly replace :—

No month passes by without events occurring in this city which prove incontrovertibly that the class of our population who dwell in tenement houses seldom avail themselves of the protection of insurance against fire, and yet no other class in the community are in such dire need of that protection. It is difficult to imagine the severe distress inflicted upon the family of a working man by the destruction of his little household furniture by fire. In many instances, we wish we could say in the majority of cases, working men in New York accumulate in a few years a very decent collection of household furniture. It is a laudable passion with our people to furnish their homes decently; and any one who is familiar with all the phases of city life will know that even throughout the tenement dwellings of New York there is a very creditable and very considerable amount of household property in the possession of the occupiers, amounting in aggregate value to several millions of dollars.

Unquestionably the working man's little household furniture, wearing apparel, &c., is of very precious value to him. In many instances it is the carefully husbanded proceeds of years of hard toil and privation. If lost, it is hard to be replaced. When unhoused by a fire, the working man's family is left in a sorry plight. No doubt, to the great credit of human nature be it said, some other poor man readily offers them shelter for a time, but how the poor sufferer can get a little furniture together again, so as to keep his children around him, and away from the evil effects of a low, cheap boarding house, it is difficult to imagine; and the trials and privations he must go through are fearfully hard to bear.

Every other day we read in the reports of fires where tenement dwellings are touched, that the occupiers suffered a great deal: lost all; but, as usual, had no insurance. It does not require a very active imagination to follow out such an outline picture in detail.

Again, we frequently notice that the workmen in large manufacturing establishments lose all their tools when a fire occurs, and no insurance on them. A severe instance of this kind occurred last month at the piano manufactory in Wooster-street, in which the men were obliged to appeal to the public for aid here, and to address their fellow workmen in other cities for assistance.

This should not be so. Every workman should have his tools insured, and it seems a heartless oversight on the part of an employer not to see that this is done. Every employer should make it a rule of his establishment that the workmen should contribute a small fund towards insurance. They should be charged with it in a pro-rata manner, and protected even in this compulsory way against the dangerous consequences of their own negligence.

Here is a large source of premium open to our fire insurance companies, and at a proper rate it would, of course, be sufficiently remunerative. We feel sat-

ified that very few employers would neglect this matter if their attention was properly directed to it.

Then as to tenement risks, it does seem to us that a very large and very remunerative revenue could be derived by our city companies from that source, if energetically worked, and be at the same time productive of great good to the community at large.

It does not seem to us at first flush to be stretching the matter too far if we assert, that every property-owner should be made responsible for the insurance of his tenant's household goods, just in the same way as an employer should be responsible for the insurance of his workmen's tools. It does not, in view of the sad evil to be remedied, seem to be too much of an interference with private rights for the Legislature to devise some law that would accomplish this object.

Where houses are divided up into a number of tenements, it would be an easy matter for the owner to add on the insurance rate to the rents; and as to the details of the principle, it would not be very difficult to work them out. The evil is patent to the community, and it is not an irremediable one.

Some time since the corporation of Baltimore had a scheme under consideration for levying an insurance tax on all the citizens, and assuming all the business of the city, as a source of revenue. The scheme was a very illusory one, and was very properly rejected: but so far as tenement dwellings and the working classes, that is, the manual workers, are concerned, it does not seem very preposterous that an insurance bureau could be added to the city government, for the collection of an annual insurance tax from the property-owners, applicable to the protection of the tenant's property from fire.

Of course such a project is surrounded with many difficulties; but the idea is worth canvassing, and we respectfully urge the matter on public attention.

HAMBURG MARINE INSURANCE.

The following is an interesting return of the amount of marine insurance in Hamburg, with the premiums, losses, and expenses for a number of years. The return does not include private underwriting, nor the assurance by agents in Hamburg of foreign companies:—

Years.	No. com-panies.	Amount insurance. mark banco.	Premiums. mark banco.	Average prem's. pr. ct.	Disbursements.			
					Losses paid.	Interest expense.	Total mark banco	Per cent.
1837..	18	195,667,000	3,048,839	1.56	2,508,557	289,367	2,797,924	1.43
1838..	19	219,163,600	3,222,625	1.47	2,561,757	311,242	2,872,999	1.32
1839..	19	246,281,400	3,570,953	1.45	2,230,608	295,786	2,526,394	1.03
1840..	20	260,696,300	3,776,635	1.45	3,062,503	337,138	3,399,641	1.30
1841..	20	266,375,200	3,746,648	1.41	3,053,917	330,010	3,383,927	1.27
1842..	21	233,181,400	3,270,711	1.40	2,704,385	334,871	3,039,256	1.30
1843..	22	248,977,800	3,444,451	1.38	3,355,419	388,732	3,744,151	1.50
1844..	23	270,894,700	3,726,411	1.38	3,515,090	397,242	3,912,332	1.44
1845..	23	304,143,400	4,461,454	1.47	5,252,431	389,033	5,641,464	1.85
1846..	24	278,040,600	4,174,543	1.50	3,553,899	380,321	3,934,220	1.41
1847..	23	333,812,500	4,939,245	1.48	3,517,408	403,534	3,920,942	1.17
1848..	23	236,793,500	4,778,420	2.02	4,355,370	443,581	4,798,951	2.03
1849..	22	258,247,200	4,025,956	1.56	3,210,888	413,700	3,624,588	1.40
1850..	22	278,156,600	4,175,606	1.50	4,054,017	403,854	4,457,871	1.60
1851..	22	178,916,500	4,171,531	1.50	3,455,857	401,552	3,857,349	1.38
1852..	22	288,311,500	4,286,628	1.49	4,593,380	400,139	4,993,519	1.73
1853..	23	367,431,200	5,528,724	1.55	4,559,308	662,416	5,221,724	1.46
1854..	23	443,457,590	6,958,775	1.57	5,791,000	867,775	6,658,775	1.50
1855..	23	459,301,660	7,214,065	1.57	5,341,745	861,820	6,203,565	1.35
1856..	25	564,528,220	8,186,365	1.45	7,256,810	747,055	7,983,865	1.41
1857..	25	613,350,400	8,527,860	1.39				
1858..	24	424,760,900	6,163,290	1.45				

Not made up.

POSTAL DEPARTMENT.

ENGLISH POST OFFICE STATISTICS.

The annual report of the Postmaster-General of Great Britain and Ireland is published. It states that the number of letters delivered in the United Kingdom during the year 1858 was 523,000,000, showing an increase of nineteen millions over the preceding year, and an increase, as compared with the year previous to the introduction of penny postage (1839,) of 447,000,000, making a *seven-fold* increase of letters within less than twenty years.

This increase is the more remarkable when it is considered that England is not like the United States, a young and growing country. The great increase of letters is not produced, therefore, by increase of population or of popular intelligence. These have their influence, but the main cause is the sagacity with which the post-office is managed. Everything is done to insure safety, cheapness, and dispatch. The rates of postage are put down to the lowest possible point. The letters are promptly delivered *personally* to those to whom they are addressed. Those which fail to reach their destiny are returned to their writers. No tedious or unnecessary delays are allowed. Letters are transmitted to the farthest points in the kingdom more rapidly than they here pass between two adjoining cities. A system of registering letters is adopted, which means something, and which affords some security—not a purely irresponsible system like ours. A money-order system is adopted, also, by which small remittances can be safely made. There were 6,689,396 money-orders issued during the year 1858, covering an amount in the aggregate of over \$61,000,000.

NEW POST ROUTE.

A postal arrangement of extreme importance, both to the United States and the Brazils, was perfected this morning, and the contract for transporting the United States mails from New York to St. Thomas, Bahia, Pernambuco, and Rio Janeiro, was awarded by Postmaster-General Holt to James D. Stevenson, Esq., of New York. A void which has too long existed in our means of communication and intercourse with Rio has thus been filled, and the already immense trade—flour, coffee, &c.—will soon receive additional impetus. A line of efficient steamers will be *en route* at an early day, and the immediate result will be a reduction of the period of communication and rate of postage fully one-half. We learn that a contract will shortly be executed between the Brazilian government and the same party, for the conveyance of the mails from the Brazils to New York.

OVERLAND MAIL ROUTE.

The following is a monthly exhibit of the number of letters, packages, and dispatches received at and sent from the San Francisco Post-office, from Septem-

ber 15, 1858, to October 31, 1859, on the Overland Route from St. Louis and Memphis to San Francisco; also, the amount of postage thereon:—

Months.	No. of letters received.	Amount of postage.	No. of letters sent.	Amount of postage.	Total number of letters.	Total amount of postages.
1858—September	.....	.....	257	\$21 00	257	*\$21 00
October...	896	\$73 16	1,613	131 71	2,509	*204 87
November.	1,780	150 66	4,748	401 87	6,528	*552 53
December..	3,190	252 67	6,465	512 09	9,655	*764 66
1859—January...	4,611	378 00	6,224	510 24	10,835	*888 24
February..	5,618	452 66	7,350	592 21	12,968	*1,044 87
March....	6,649	565 45	7,152	608 22	13,801	*1,173 67
April.....	6,929	568 44	8,328	707 32	15,257	1,275 76
May.....	11,469	1,065 60	15,240	1,459 08	26,709	2,524 68
June.....	13,007	1,199 90	18,344	1,881 71	31,351	3,081 61
July....	12,869	1,134 26	24,906	2,627 78	37,775	3,762 04
August...	14,976	1,379 92	24,720	2,694 42	39,696	4,074 34
September.	12,233	1,256 83	23,612	2,507 15	35,845	3,763 98
October...	18,149	1,812 87	27,851	3,061 75	46,000	4,864 62
	112,376	\$10,290 42	176,810	\$17,706 55	289,186	\$27,996 97

PRUSSIAN AND ITALIAN POSTAGES.

RATES OF POSTAGE BY THE PRUSSIAN CLOSED MAIL TO PARTS OF ITALY, ETC.

In consequence of the recent territorial changes in certain of the Italian States, the rates of postage between this country and those States by the Prussian closed mail have been changed as follows:—

To Sardinia, Lombardy, (that part ceded by Austria,) Parma, Modena, Tuscany, and Romagna, 42 cents, prepayment optional.

To Papal States (excepting Romagna,) 46 cents, prepayment compulsory, being in full to the Tuscan Roman boundary.

To the Two Sicilies, 49 cents, prepayment compulsory, being in full to Roman Neapolitan boundary.

NEWSPAPERS POSTAGE TO THE EAST INDIES, ETC., IN THE BRITISH MAIL, VIA SOUTHAMPTON AND SUEZ.

The British postage upon newspapers sent from England by way of Southampton and Suez to the East Indies, Ceylon, Mauritius, Hong Kong, China, Australia, or any other place to the eastward of Suez, was, on the 1st of January ultimo, increased by the additional charge of one penny (2 cents) each.

In future, therefore, the postage to be charged upon newspapers mailed in the United States, and addressed to the above mentioned countries and places via England, by way of Southampton and Suez, will be 6 cents—prepayment being compulsory.

* Estimated.

RAILROAD, CANAL, AND STEAMBOAT STATISTICS.

JAMES RIVER AND KANAWHA CANAL.

In conformity with a resolution adopted by the present House of Delegates of Virginia, Colonel Thomas H. Ellis, president of this company, has forwarded to that body a complete statement of its affairs from its commencement to the 30th of September last.

The entire cost of the canal, including a bonus to the old James River Company, in the form of an annuity, amounting to twenty-thousand dollars—has been ten millions seven hundred and sixty-three thousand nine hundred and ninety-six dollars and thirteen cents, (\$10,763,996 13.) The cost of maintenance and repairs, of general administration, of interest paid, and from losses incurred, amounted to the aggregate of five millions six hundred and eighty-six thousand five hundred and thirty-six dollars and ninety-six cents, (\$5,668,536 96,) making the total expenditure of every kind from the organization of the company in May, 1835, to the 30th of September, 1859, sixteen millions eighty-two thousand five hundred and thirty-three dollars and nine cents, (\$16,082,533 09.) The receipts from tolls and other income during the same period, have been five millions one hundred and sixty-one thousand eight hundred and fifty dollars and sixty cents, (\$5,161,850 60,)—about half a million less than the current expenses,—whilst the total receipts from capital stock subscribed and paid for, capital borrowed, tolls and other income, have been sixteen millions one hundred and two thousand eight hundred and twenty dollars and seven cents, (\$16,102,820 07,) leaving a balance on hand in October last of twenty thousand two hundred and eighty-six dollars and ninety-eight cents.

The portion contributed by the State, in various ways, to the total expenses of the canal from 1835 to 1859, aggregates eight millions seven hundred and fifty-two thousand one hundred and sixty-five dollars and thirty-five cents, (\$8,752,165 35,) whilst she has a further interest in the work as the owner of stocks in the old James River Company, guarantied bonds, &c., amounting in the aggregate to two hundred and forty-four thousand eight hundred dollars, (\$244,800 00.)

The report states that at a meeting of the directors held in December, 1858, a reduction was made in the number of officers and overseers, and in some of their salaries, to take effect on the 1st of January, 1859; so that the estimated expense for compensation to officers and agents during the year 1859, is fifty-four thousand seven hundred and forty-six dollars and seventy-four cents; a sum which, considering the magnitude and extent of the operations controlled, does not appear extravagant.

We regret to learn that since the year 1854, the receipts of the company have been annually diminishing, (if we except the last year,) notwithstanding the opening of the Virginia and Tennessee Railroad, and the completion of the tide-water connection. For some years prior to 1853 there had been a large annual increase of revenue, so that the receipts that year amounted to \$283,998 60; whilst, declining steadily to 1857, they were that year only \$181,622 55. We

observe, however, a little improvement last year, when the receipts were \$189,062 20.

This decline in the business and receipts of the company (if we may except the year 1857, when the disastrous freshet interrupted the navigation of the canal for a long time,) is accounted for as the result of the opening of the Southside, Danville, and Central Railroads, each of which have diverted from the canal much of the trade which it formerly controlled.

SAFETY OF RAILWAY TRANSPORT.

Calculations, based upon the most authentic returns, have established that since the introduction of railways into France, there has been one traveler only killed outright in every two millions of passengers, and there has only been one traveler wounded in every five hundred thousand passengers. What was the ratio of such casualties in the good old times of slow traveling? Why, when the diligences were in use, there was on an average of ten years one killed of every 356,000 travelers by these vehicles, and one wounded in every 30,000. It seems, also, that in France, where every care is taken to prevent timid dowers and fast young people getting into danger at stations, the results have been less favorable than in Belgium, where one only has been killed in nine millions of travelers, and one wounded in two millions. Against railway accidents one ought to be able to assure his life and limbs at a very small figure in Germany, for in Prussia and the Duchy of Baden there has been but one killed in every seventeen and a half million of travelers, and only one wounded in 1,200,000.

THE RAILWAYS OF TENNESSEE.

We have received, says the *Railway Times*, the report of H. F. CUMMINS, Road Commissioner to the State of Tennessee, upon the present condition of the railways of that State. We tabulate the results, that a general view may be had of the whole system:—

TABULAR EXHIBIT OF THE RAILWAYS OF TENNESSEE FOR THE YEAR 1859.

RAILWAYS COMPLETED AND IN OPERATION.

Name of company.	Length of Road and Branches.	Length in Tennessee.	Cost of Road.	Cost of Equip-ment.
Memphis and Charleston.....	287.56	100.20	\$6,188,033	\$743,729
Mississippi and Tennessee.....	99.00	9.70	2,000,000	.....
Mississippi Central and Tennessee.	47.40	47.40	975,619	82,909
Nashville and Chattanooga.....	159.75	159.75	3,632,883	631,670
East Tennessee and Georgia.....	140.00	125.00	3,637,367	.....
East Tennessee and Virginia.....	130.28	130.28	2,466,397	156,364
Winchester and Alabama.....	38.80	38.80	408,477	.....
McMinnville and Manchester.....	34.20	34.20	590,624	56,816
Louisville and Nashville.....	185.50	45.00	5,994,092	401,846
Tennessee and Alabama.....	57.52	57.52	1,185,053	76,016
Total.....	1,179.76	747.90	\$27,078,546	\$2,149,351

Railroad, Canal, and Steamboat Statistics.

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Name of company.	Capital paid in.	Funded debt.	Floating debt.	Total debt.
Memphis and Charleston.....	\$2,237,665	\$2,700,000	\$443,616	\$3,143,616
Mississippi and Tennessee.	798,285	554,949	319,518	874,467
Mississippi Central and Tennessee	317,344	632,500	22,368	656,863
Nashville and Chattanooga.....	2,256,479	34,000	21,769	55,769
East Tennessee and Georgia.....	1,279,653	2,020,900	200,000	2,220,000
East Tennessee and Virginia.....	556,654	1,902,200	390,407	2,292,407
Winchester and Alabama.....	216,962	413,000	.....	413,000
McMinnville and Manchester....	144,894	406,000	5,000	411,000
Louisville and Nashville.....	3,533,671	1,540,000	426,381	1,966,381
Tennessee and Alabama.....	595,923	860,000	204,545	1,064,545
Total.....	\$11,937,532	\$11,052,949	\$2,083,605	\$18,086,104

Name of company.	Receipts.	Expenses.	Net Earnings.
Memphis and Charleston.....	\$1,330,812	\$552,776	\$778,036
Mississippi and Tennessee.	177,226	60,029	117,226
Mississippi Central and Tennessee	83,130	38,463	44,667
Nashville and Chattanooga.....	675,832	365,632	310,200
East Tennessee and Georgia....	318,718	131,152	187,566
East Tennessee and Virginia.....	297,806	148,638	149,176
Winchester and Alabama.....	1,249	.....	.....
McMinnville and Manchester....	*47,615	*19,830	*27,785
Louisville and Nashville.....	*426,062	*199,205	*226,857
Tennessee and Alabama.....	75,130	27,550	47,579
Total.....	\$3,433,579	\$1,543,275	\$1,889,085

The roads in course of construction are as follows :—

Name.	Length.	Cost.	Capital paid in.	Debt.
Memphis and Ohio.....	130.6	\$2,300,412	\$570,000	\$1,506,000
Memphis, Clarksville and Louisville	56.8	1,237,900	298,721	70,000
Mobile and Ohio.....	509.0	9,332,629	3,518,312	5,033,334
Edgefield and Kentucky.....	47.0	857,949	333,233	672,900
Central Southern.....	47.0	549,398	257,466	32,000
Rogersville and Jefferson.....	14.0	3,500	12,921	75,000
Nashville and N. W.....	175.0	367,166	420,000	31,461
Total.....	980.00	\$14,649,454	\$5,410,653	\$7,390,695

There is also 272 miles of road which have been commenced, and upon which the work has been suspended. Some few of the roads give the miles run, from which we obtain the following figures :—

Upon 8 roads there was run 1,887,945 miles; the cost of operation being \$1,627,602; the receipts \$3,634,122, and the net income \$1,961,520. The per cent of expense to earnings was 46. The State deserves praise for the attempt to obtain information in regard to railways. Tennessee has an amount of road that it need not be ashamed of, and many other States would do well to follow in her steps in the matter of presenting an annual exhibit of railway operations.

* These figures are for two years.

RAILROADS OF OHIO.

The following is a list as complete as can be computed, of the roads in Ohio, their length, and the cost of each line up to the present date:—

Companies.	Total length.	Length completed.	Cost of road and equipment.
Ashtabula and New Lisbon.....	84.6	0.0	\$609,000
Bellefontaine and Indiana.....	118.2	118.2	3,008,919
Carrollton Branch.....	11.5	11.5	225,000
Central Ohio.....	137.0	137.0	6,385,151
Cincinnati, Hamilton and Dayton.....	60.3	60.3	3,153,158
Cincinnati and Indianapolis Junction.....	[See Ind. 26 miles in Ohio]		
Cincinnati, Wilmington and Zanesville.....	162.8	131.8	6,258,841
Cleveland, Columbus and Cincinnati.....	135.4	135.4	4,772,526
Branches.....	5.8	5.8	
Cleveland and Mahoning.....	85.0	67.0	1,920,958
Cleveland and Erie.....	96.6	96.6	8,968,646
Cleveland and Pittsburg.....	101.0	101.0	9,320,288
Tuscarawas Extension.....	32.0	32.0	
Hanover Branch.....	1.5	1.5	
Beaver Extension.....	22.0	22.0	
Wheeling Extension.....	47.0	47.0	7,276,459
Cleveland and Toledo—North Division.....	109.2	109.2	
“ “ South Division.....	79.4	79.4	
Cleveland, Zanesville and Cincinnati.....	114.4	61.4	1,574,693
Clinton Line.....	55.3	0.0	1,000,000
Clinton Line Extension.....	94.3	0.0	1,933,000
Columbus and Indianapolis.....	103.0	103.0	3,555,000
Columbus and Xenia.....	54.6	54.6	1,769,159
Dayton & Cincinnati (tunnel).....	53.2	0.0	2,000,000
Dayton and Michigan.....	144.0	144.0	3,746,000
Dayton and Western.....	36.6	36.6	1,035,174
Dayton, Xenia & Belpre.....	63.0	16.0	860,496
Eaton and Hamilton.....	45.0	45.0	1,217,859
Four Mile Valley.....	34.0	0.0	340,090
Fremont and Indiana.....	120.0	26.0	1,200,000
Greenville & Miami.....	32.0	33.0	888,000
Indianapolis & Cincinnati.....	[See Ind. 17.5 miles in Ohio.]		
Iron.....	47.0	13.0	201,879
Little Miami.....	83.4	83.4	4,236,996
Marietta and Cincinnati.....	173.8	173.8	10,633,213
Hillsboro' Branch.....	21.6	21.6	
Mich. South. and North. Ind.—Toledo Section. }	See Mich.	3 miles in Ohio.	
“ “ “ “ Goshen Line... }		69 miles in Ohio.	
“ “ “ “ Det. Mon. & Tol. }		7 miles in Ohio.	
“ “ “ “ Erie & Kal'mazo }		12 miles in Ohio.	
Ohio and Mississippi.....	192.3	192.3	18,635,687
Pittsburg, Columbus and Cincinnati.....	117.0	117.0	4,772,951
Cadiz Branch.....	8.0	8.0	
Pittsburg, Fort Wayne and Chicago.....	[See Penn. 264 miles in Ohio.]		
Pittsburg, Maysville and Cincinnati.....	225.0	0.0	390,933
Sandusky, Dayton and Cincinnati.....	153.9	153.9	4,594,156
Old Line.....	52.0	52.0	
Findlay Branch.....	16.0	16.0	
Sandusky, Mansfield and Newark.....	116.0	116.0	2,141,811
Huron Branch.....	9.0	9.0	
Scioto and Hocking Valley.....	130.0	55.6	1,103,975
Springfield and Columbus.....	43.0	19.5	346,500
Springfield, Mt. Vernon and Pittsburg.....	112.0	49.8	2,205,000
Tiffin and Ft. Wayne.....	102.7	0.0	102,700
Toledo, Wabash and Western.....	243.0	243.0	10,542,000
Total.....	4,084.7	3,008.2	\$127,949,123

MASSACHUSETTS RAILWAYS, 1859.

The Boston *Railway Times* gives the following returns of the Massachusetts railroads in 1859 :—From the reports of the various railway companies in this State, made to the Legislature, we have compiled our annual tabular exhibit of the length, cost, debt, earnings, expenses, and detail of operation of the 1,380 miles, which form the Massachusetts system. Compared with the years 1857 and 1858, the length, cost, and general result of operation for the year past, stand thus :—

	1857.	1858.	1859.
Number of companies.....	51	51	53
Length of roads in miles.....	1,632.85	1,629.88	1,629.88
Aggregate capital.....	\$62,750,500	\$58,857,500	\$59,495,200
Amount paid in.....	50,453,049	48,136,164	48,309,507
The aggregate cost.....	69,298,246	84,805,017	63,318,840
The total earnings.....	10,015,692	8,974,365	10,101,331
Funded and floating debts.....	22,416,488	20,394,719	17,536,331
Surplus earnings on hand.....	2,823,189	2,994,138	3,427,082

These general results are slightly affected by the imperfection of the returns made by the several companies to the State. The earnings, it will be observed, are larger while the debt is smaller; the surplus is larger while the cost of railway is smaller, the capital of some roads having been reduced. The novelty of railway building and speculating having somewhat passed away, the institution has become a subject of more careful study. It is beginning to be seen that railway management is as distinct a branch of commercial science as manufactures, agriculture, or navigation; that men require a special education, both practical and theoretical, in order that they may successfully operate the great investment of over a thousand millions of dollars. A great deal of what may be called reconstruction, is at present employing the companies; we refer to the substitution of iron bridges for the wooden ones that have been in use upon many of our railways. This we regard as doing the right thing just at the right time. Unless many of our roads had at first built bridges of wood, they would in all probability have built no bridges. While these structures have been doing their duty upon American railways, the iron tubular system has sprung up in Great Britain, and has been applied to an extent sufficient to show us that it ought not to be used except in very peculiar cases; but at the same time the adoption of the iron trusses seen upon our roads has fulfilled the double requirement of safety and economy. The great field for improvement now open, appears to be the permanent way. All sorts of patent chairs, rail joints, fishes, and splices are before the railway public, but few companies have as yet in this country done much towards adopting them; we hope the present year will show some decided steps taken in this direction. It will be seen by the figures that the business has increased, while the expense of operation has in some departments decreased, and in others augmented. Fuel expenses have been reduced from 15.10 cents to 11.78 cents; repairs of road bed and machinery have somewhat increased. As a whole, the net income is larger. The machine department has had more attention given to it of late years than any other perhaps, and the reduced locomotive expenses are the reward of the care thus bestowed. We have endeavored to

treat all of the roads by the same standard, but the reports made to the State government do not allow of an absolutely fair comparison. The main facts of operation for the two years past are as below:—

	1858.	1859.
Number of railways.....	41	41
Length of main lines.....	1,242.4	1,242 7
Length of branches.....	186.0	187 1
Double track and sidings.....	437.7	499.7
Cost of railways.....	\$62,178,535	\$61,611,721
Capital paid in.....	45,985,938	45,822,352
Funded debt.....	14,705,451	15,166,121
Floating debt.....	1,677,874	1,063,932
Total debt.....	16,383,380	16,486,517
Interest paid on debt.....	864,682	809,564
Dividends paid.....	2,006,514	2,200,986
Surplus.....	3,166,306	3,286,497
Receipts from passengers.....	3,944,803	4,870,982
Receipts from freight.....	3,794,295	4,613,831
Receipts from mails, &c.....	502,919	372,372
Total receipts.....	8,596,703	9,771,378
Expense of road bed.....	1,246,202	1,599,531
Expenses of machinery.....	737,375	939,531
Other expenses.....	2,821,925	3,079,609
Total expenses.....	4,813,944	5,561,274
Net income.....	3,782,759	4,210,104
Percentage of expense to income.....	55.8	56.9
Net income per cent on cost.....	6.08	6.80
Miles run by passenger trains.....	3,098,510	3,293,149
Miles run by freight trains.....	2,128,017	2,462,158
Miles run by other trains.....	202,876	182,877
Total miles run.....	5,454,641	5,949,761
Receipts per mile run, cents.....	157	164
Expenses per mile run, cents.....	88	93
Net income per mile run, cents.....	69	71
Cost of fuel per mile run, cents.....	15.10	11.78
Cost of wood per cord.....	\$4 46	\$3 91
Road repairs per mile run, cents.....	22.80	25.20
Engine repairs per mile run, cents.....	6.80	7 60
Car repairs per mile run, cents.....	6.40	7.80
Passengers carried in the cars.....	8,443,789	11,974,393
Passenger mileage.....	168,687,421	184,468,837
Tons carried in the cars.....	3,174,909	3,616,733
Tonnage mileage.....	107,303,461	112,621,312

ACTION OF RIVERS ON THEIR BEDS.

The agencies by which a river forms and maintains its channel are of two descriptions, which may be designated its abrasive and impinging forces.

The impinging or excavating power is produced when the act of the stream forms an angle with the bottom or sides of the channel, by which action its banks are hollowed, or pools formed in its bed. The effect of this impact is to deflect the current, and thereby to create an eddy, in which the excavated material finds a resting-place, producing irregularities in the channel as a natural result. This tendency is kept in check by the abrasive action of the stream, which, being the resultant of the friction of the current, when its set is parallel to the

river bed, the transporting power of the latter is more dependent on its volume or depth than on its velocity. From the circumstance that the velocity of a stream is dependent on the slope of its surface, we must necessarily admit that an increase of the impinging action will accompany an augmentation of its velocity.

A river whose current moves at the rate of two miles an hour, must necessarily require twice the sectional area of channel that one does with a velocity of four miles, for the discharge of a similar quantity of water.

A stream meets with the least resistance to its progress when it passes through a lake, in which case the slope of its surface, as well as its velocity, are reduced to a minimum; but from the absence of any scouring action on the bed of the lake, a constant deposit will take place thereon. When the stream is in its ordinary state, a similar deposit takes place in the pools formed in the beds of rivers by the action of land floods; but, on the recurrence of a flood, not only are the lighter deposits swept away by the abrasive action of the stream, but rough gravel is frequently carried along these deeper portions of the channel, to find a resting-place on the shallows, where it resists the impinging action generated by the increased velocity of the stream over these declivities.

A river will maintain its channel with the minimum velocity, and maximum sectional area, when its breadth is great in proportion to its depth; any increased declivity of its bed will augment the impinging action of the stream, which action, by producing irregularities in its channel, will reduce the sectional area to the size merely adequate for the passage of the more rapid stream.

A contraction of the width of the stream will augment its velocity, and with that the abrasive or frictional action on its bed, thereby adding to its depth; but, as the increased scouring power thus expended has its origin in the velocity of the current, its existence is dependent on the reduced sectional area of channel which produces that velocity. A rapid shallow stream, flowing over a rough gravelly bed, exhibits an uneven surface from the irregularities in its bed giving an upward movement to the water in passing over them. An increase in depth will impede this action, thereby augmenting the friction, and with it the transporting power of the stream. This will satisfactorially account for the disappearance of gravel from the lower reaches of rivers, where a small inclination of surface is associated with an increased depth.

In tidal rivers it is clear that a large sectional area of channel is rather due to the scour of the greater volume of the early ebb, than to the comparative small and usually rapid current of the last quarter; hence, the great injury to navigation that invariably follows the enclosure of lateral indents and salt marshes, which, although they may only be covered on spring tides, are of essential importance for the maintenance of a good channel, from the circumstance of their yielding up their water during the early ebb, when the scouring power is at its maximum. Although a deep narrow channel may be the form best adapted for the purpose of navigation, a broad shallow expanse is a superior one as a tidal receptacle.

JOURNAL OF MINING, MANUFACTURES, AND ART.

GEORGIA MANUFACTURES.

A Georgian contemporary remarks, that out of four millions of bales of cotton raised last year, only about one hundred thousand bales are estimated to have been manufactured into cloth in all of the slaveholding States—such an insignificant proportion as to be hardly worth mentioning. Of the quantity of cotton manufactured in the slaveholding States, the following statement will show how it is divided :—

	1855.	1856.	1857.	1858.	1859.
North Carolina.....bales	18,500	22,000	25,000	26,000	29,000
South Carolina.....	10,500	15,000	17,000	18,000	20,000
Georgia.....	20,500	25,000	23,000	24,000	26,000
Alabama.....	5,500	6,500	5,000	8,000	10,000
Tennessee.....	4,000	7,000	9,000	10,000	13,000

There is probably no product of the earth of which so little is made ready for use where it is raised, while there is no reason why it should be so. The water power of the South is as good as it is anywhere, but the great bug-bear is, that labor is too high—an assertion which is not true, as can be proven by a history of those factories which have been successfully managed in Georgia. The kind of labor required in cotton factories occupies persons to whom it is almost charity to give employment, and the compensation is established by the employer. Women and children do most of the work, and a cotton factory well managed, operates as a blessing to a town, by giving the poor and helpless people employment. The history of these enterprises in Georgia is not encouraging, and the failures have deterred many persons of capital from embarking in them when solicited to do so, but the reason of failure has always, in our opinion, been attributed to the wrong cause. The fact that a single factory has been made to pay a fair interest on the money invested in it, is conclusive proof that it is possible to make them all pay; and it is but reasonable under the circumstances to suppose, that bad management has been a more fruitful source of failure than any other cause. All the factories at the North do not pay dividends, nor can it be expected that business managed ignorantly, and consequently badly, will be profitable anywhere.

The difficulty which has caused most of the Southern factories to be unsuccessful, has been farther back than the management of the works after they have been completed. It arises from undertaking to put up buildings and equip them with the necessary machinery on a scale entirely out of proportion to the money subscribed for the purpose, and the company is generally burdened, when their buildings are finished, with a heavy debt, and no cash to start business with. We probably should be within the bounds of truth if we asserted that four out of the five factories, erected in Georgia, or the South, have undergone this experience. With this state of affairs existing, the company cannot buy its raw material to advantage to begin with, and being pressed for money, the goods have to be sold, no matter what the state of the market, as soon as they are completed. This cuts off a percentage at both ends, and is almost a guaranty for embarrassment at the commencement, and failure in the end. We do not

know a factory in Georgia which has had plenty of means to conduct its business that has not earned fair dividends. The factory at Macon, which, by the way, is a perfect model, was on too extensive a scale for the amount subscribed, and bid fair to run the same course of others which had started under similar circumstances. The stockholders, however, seeing the danger likely to arise from it, instead of selling out their interest, and thereby bringing discredit on the enterprise, stepped forward and increased the stock sufficiently to enable it to go on without embarrassment. Another fact may be stated, about this factory, to refute the generally entertained opinion that we have not the managers here to conduct such establishments. When the Macon factory was first started, it was under the control of a man brought from New England at a high salary, but he soon convinced the owners that he did not understand our people, and would not answer for the place. Mr. Williams S. Holt, a Georgian born and raised, was then appointed as his successor, a position he still occupies, with credit to himself and satisfaction to the company. The annual dividends are ten per cent., and we believe that every yard of goods that is made is sold on the spot. This is not the only case of this kind in Georgia. Mr. Barrington King manages a factory at Roswell with marked success. The Augusta factories are also profitable, we believe. But it has not been our object to show what factories in the State pay dividends, so much as to show that why they don't pay is entirely within our control. Every one is too apt to attribute a failure to any cause which does not touch themselves, or bring the calculations they make into question. We are ready to believe that labor is too high to manufacture successfully, and therefore adopt it as a conclusion without giving the matter a thought. Convinced by experience that we can compete with the North in this branch of industry, it becomes us to make ourselves independent of her by pursuing it.

MANUFACTURE OF ALUMINUM.

A French artisan has invented a new and perfect method of soldering aluminum. He employs a solder made of zinc and aluminum, and uses five kinds, differing in hardness. To prepare the solder, he breaks up the aluminum into small pieces, and melts it in a black lead crucible, by putting it in little by little, and when the aluminum is melted, it is stirred with an iron rod, while the zinc is added in small quantities at a time. It is still stirred, while a little tallow is added, to prevent the oxydation of the zinc, and it is then cast into small bars for use. The heat must not be sufficient to drive off the zinc in vapor, and the zinc should be free from iron. The five kinds of solder melt at different degrees of heat. Number one is hardest, the others are softer in succession. The soldering bolt ought not to be of iron or copper, but of aluminum itself; for the solder sticks to iron or copper sooner than to aluminum. Another novelty in this branch of manufacture is aluminum bronze, made of ten parts aluminum to ninety of copper. It has the tenacity of steel. This alloy is now applied on a large scale by M. CHRISTOFFLE, and it is found admirably adapted for the friction surfaces of machinery. A bearing which had been placed on a polishing lathe making twenty-two hundred revolutions a minute, was found to last eighteen months, while other bearings lasted only three months at most. Cannon, howitzers, and other weapons, have also been made of this bronze.

WATER-GAS.

We learn from the *Scientific American* that the process, as stated, consists in mixing water and coal-tar, or turpentine, &c., in a boiler, applying heat to it, and making the vapor so produced pass through the red hot charcoal in a retort. The gas thus obtained is that regarding which Professor Mapes has made such remarkable statements, according to our correspondent. The subject of water-gas is quite old, and White's method, patented January 29, 1850—although somewhat different—appears to be superior to that of Sanders'. In the use of coal-tar with water, to produce gas, a very small portion of hydro carbon vapor can pass over by Sanders' method, and turpentine is too expensive to use. The process, as described in the patent, is almost impracticable for useful purposes, as the water and tar, or whatever may be used, should be first exposed in a retort in the method pursued by White. His plan consisted in using two retorts; water was admitted to one in small quantities by a siphon, and falling upon red hot charcoal, and scraps of iron, it was decomposed, some passed off as carbonic oxyd (CH_2) a portion as hydrogen, and some as steam. These products were then passed by a pipe into the other retort containing resin, and there united with the resinous gases, forming the hydro-carbon, or water-gas. Gas obtained from the destructive distillation of resin is a compound of olefiant and carbureted hydrogen ($\text{C}^2\text{H}^2 + \text{CH}^2$), and is highly luminous. Gas obtained from the vapor of water passing through red hot charcoal, is a carbonic oxyd and hydrogen ($\text{CO} + \text{H}$.) According to Dr. Frankland, of Manchester, England, no portion of the hydrogen from water enters into chemical combination with carbon vapor in a retort. As neither carbonic oxyd nor hydrogen gas possess illuminating power, of course we must consider that when these gasses are mixed in any manner with illuminating gas, it is only for the purpose of dilution, not illumination. It is stated by Professor Sanders that he prefers to use coal tar on account of its great cheapness; but if his invention is to supersede gas made from coal, as is contended by some, where can he get his coal-tar—this being the refuse of our coal gas-works? The Philadelphia correspondent of the *New York Tribune*, gives a very unreliable account of his water-gas, and the process by which it is made. He states that the patent rights for eight States have been sold by Dr. Sanders for \$80,000, and that good gas can be supplied for 30 to 50 cents per 1,000 feet. Such statements are calculated to deceive the people and do great injury.

There is a great amount of ignorance prevailing regarding gas for illuminating purposes, many supposing that equal quantities of every gas are of equal value, which is far from being the case. Gas made from solid hydro-carbons, such as coal and resin, is chiefly valuable according to the amount of olefiant gas which it contains. Resin is superior to coal gas in quality, just because it contains more olefiant gas; and cannel coal makes more olefiant gas than common bituminous coal. The value of gases can only be determined by experiment, not by the inspection of a gas-burner. The quantity of olefiant gas present is ascertained by mixing chlorine with this gas in a dark place. The chlorine and olefiant gases unite and form a yellow oily fluid, consisting of one atom of chlorine and one of olefiant gas, the equivalents being $36 + 14 = 50$. Hence fourteen-fiftieths of the product will be the weight of the olefiant gas combined. It is probable that the amount of olefiant in the gas with which this

city is supplied is not above 5 per cent, the remainder being carbureted hydrogen. The density of this gas is .981, and 100 cubic inches weigh 30.57 grains. This information, we believe, will be found very useful to many of our readers.

COPPER IN THE SEA.

Some five years ago, two French chemists demonstrated that the ocean contained a notable portion of silver. Recently these and other philosophers have again been at work upon the same subject; following it up, however, much closer, they now tell us that, calculating the whole ocean, it cannot contain less than two millions of tons of silver in solution. The truth of this statement is verified by experiments tried at various parts of the world—one more famous than the rest by Mr. Field, an English chemist, who lives at Coquimbo, in Chili. The water he analyzed was taken from the Pacific Ocean, and afforded the same result as that which the French chemists obtained from water taken off St. Malo, France, in the English Channel. That the ocean could contain minute portions of every substance of the globe that is soluble in saline water, is not surprising; therefore, we are, in a measure, prepared for the further discovery that the "old grey-beard ocean" contains also an enormous quantity of copper—a fact recently proved in the laboratory of Mr. Septimus Piesse, of London. The beautiful blue color of portions of the Mediterranean sea is due, he says, to an ammoniacal salt of copper, while the greenness of other seas is owing to the chloride of copper. The method of extracting silver from the sea is one of simple affinity. Granulated copper being suspended in the "briny waves," any silver salt that is contained therein is decomposed, a portion of the copper is dissolved, and the silver is precipitated thereon, from which it is afterward parted by the usual means adopted in every laboratory.

RICHMOND AND HER MANUFACTURING INTERESTS.

A Richmond paper remarks:—We learn from the gentlemanly and efficient agent of the Manchester Cotton and Woolen Manufacturing Company, Wm. H. Powers, Esq., that at the last meeting of the board of directors of that company, an order was passed instructing him to erect at once machinery for manufacturing woolen fabrics, and that by the first of March he expects to get under way, and will consume from 8 to 10,000 pounds of wool per week. This will open a market for the large quantity of wool grown in the State, which has for the past five years sought a market in the Northern cities, there being no regular market for wool in this city, since the burning of the woolen factory here in 1854.

We congratulate the wool growers of the State on this important move. The company is very responsible, and we doubt not will be liberal in the prices paid for wool, and we deem it scarcely necessary to advise those who have that article to sell, to send it to this market.

Our friend, Charles Y. Morris, is now pushing to completion a large sugar refinery, and we hear will be able to turn out the "refined article" by early spring.

We hear that four or five of our most enterprising citizens, with an abundance of capital, have associated themselves together for the purpose of establishing a

large tannery, and that a gentleman from Newark, New Jersey, has applied to them for an interest in the business, and the privilege of connecting with it a large shoe and boot factory—he offering to furnish \$500,000 as his part of the capital to be employed. In addition to these, it is expected that a large manufactory will soon go into operation here for manufacturing fire-arms, and on a large scale.

PRINTING ON SILKS AND MUSLINS.

The only establishment in this country for printing on silks and muslins, for mourning goods, is on the Schuylkill, and the process is described as follows:—

Unbleached muslin is used, the bleaching of which forms one of the most interesting processes in the establishment. The muslin is first passed rapidly over an iron plate, heated to a red heat, and is then taken to a bleaching room, which contains three boilers, each of sufficient size to hold 42,000 yards of muslin. The goods are boiled first with lime, and are then passed into the second boiler, containing soda, and then into the third, having chloride of lime mixed with water. The muslin is also passed through sulphuric acid, and is then taken in this state to another room, and after being spread out by means of double screws, diverging from the center, is passed over seven large copper drums, heated by steam.

Twenty seconds are only required to dry the muslin. It is again passed through a solution of alum and iron, and again dried by passing it over a hot plate; this process being intended to rid the muslin of all solvent matter. It is then hung up for a day or two, so as to oxydize the metals with which the muslin is imbued. The rollers for printing are of copper, and the number of rollers is regulated by the variety of colors to be printed upon the muslin. A single machine will print about 13,000 yards per day. A large number of silk handkerchiefs are printed at this establishment, the process being the same as that used in printing the best quality wall paper. Many of the blocks are made in the same way, and the printing is entirely similar. As many as twenty blocks are used in coloring one handkerchief. Five men will print about 900 per day. The cost of the handkerchief not only depends upon the quality of the silk, but upon the number and richness of colors.

IMPROVEMENT IN SEWING BOOTS AND SHOES.

The object of this invention is to enable the manufacturer to perform the work which is now done by hand, and to make the entire boot or shoe by any ordinary sewing mechanism for carrying waxed thread, with the exception of putting on the heel, which is a very simple and comparatively easy operation when the sole has been properly attached. This improvement enables the manufacturer of boots or shoes to put together his work with great facility, and a great saving of time is accomplished, there will be less expense attending the manufacture of sewed shoes, and they may be furnished below the present market value of pegged shoes. Another great advantage in this invention is, that the entire work of sewing about a boot or shoe can be performed in a neat and perfect manner by ordinary workmen, and those unskilled in the present art of making boots and shoes, therefore the expense of workmen will be much reduced, while the work can be made equal, if not superior, in strength and durability, to those at present furnished to the market. For this purpose the invention consists in sewing the welt, or strip of leather, to the leather upper, which is previously *fitted* as near the edge of the same as may be found necessary, before the upper is lasted. The patentee of this invention is FRANCIS D. HALLOU, of Abington, Mass.

WOOLEN MANUFACTURES.

Messrs. G. W. BOND & Co., of Boston, in their annual circular remark:— Having undertaken to obtain full statistics of the woolen manufacture of the United States, we publish the result as far as reached, and solicit all manufacturers from whom we have not received direct returns to forward the statistics of their own mills by early mail. Complete tables may prove of great importance if the tariff is again acted upon by Congress. We take this opportunity of thanking those to whom we are indebted for assistance in this undertaking, and to urge upon all to aid us in making them complete and accurate:—

QUANTITY AND CLASSIFICATION OF WOOLEN MACHINERY IN NEW YORK AND NEW ENGLAND.

	New Maine.	Ver- Hampshire.	mont. .	Massa- chusetts.	Con- necticut.	Rhode Island.	New York.
Satinets.....	9	3	32	165	112	33	20
Cassimeres.....	28	40	44	285	95	82	103
Cotton warp cloths.....	..	..	..	82	..	..	31
Stock of yarn and hosiery.....	6	12	6	30	74	..	33
Worsted and woolen yarn.....	..	10	..	76	..	8	..
Blankets and flannels.....	40	81	11	185	19	..	33
De laine.....	..	58	..	67	..	..	..
Carpets.....	..	2	..	62	70	..	74
Cashmaretts.....	..	4	..	5	..	..	..
Shawls.....	..	..	..	10	..	7	26
Feltings.....	..	..	..	14	30	..	..
Negro cloths and jeans.....	..	..	..	..	..	53	..
Linseys and dometts.....	..	..	..	..	..	42	..
Sundries.....	8	18	39	18	9	..	138
Total number of sets.....	91	228	122	999	404	225	468
Number of establishments...	32	56	56	154	93	56	208

Those classed sundries are very small.

The above classification is not strictly accurate, as it is impossible in some mills to say how many sets are in each description.

The year which has passed was one of unusual if not unsurpassed prosperity to the manufacturers, growers, and importers of wool. Nearly all the machinery in the country has been in operation, including some mills which have stood still for years. Most of it has been run to its fullest capacity, and much for extra hours, so that the consumption of wool has undoubtedly been larger than in any previous year. With the diminished clip of the country this could not have been but for the large importation of foreign wool, exceeding 18,000,000 pounds at this port, and probably from 33,000,000 to 35,000,000 in the whole country. We cannot reach this accurately, as the government ceased after the passage of the tariff of 1857 to preserve the record. This amount, larger than ever before imported in one year, has been readily taken by the manufacturers, leaving at the close of the year small stocks in first hands. The nearest approach to this year's importation was in 1857, when it reached 32,548,491 pounds, which was then beyond the needs of the manufacturers, and left on the market an accumulation which cramped the importations for the two succeeding years. The demand for wool has been continually brisk and prices have varied less than usual during the year. For most descriptions our quotations will be found to vary little from those in our last annual report. The exceptions to these last remarks are low grades, both low clothing and such as are fitted only for negro cloths and carpet

filling. In these there has been little activity, and prices to-day are hardly as high as they were a year since, while at some periods during the year they have been less. The old stock, however, is mostly cleared off the market, and we look for that improvement which is essential to encourage the importation.

THE COAL TRADE.

This is one of the important interests of the great State of Pennsylvania—important not only to itself, but to the manufacturers and people generally of the neighboring States. The total export of anthracite coal alone from the mines of Pennsylvania last year was 7,625,820 tons, an increase of 617,500 tons beyond that of the year 1858. In addition to this, the local consumption in the interior is large, and the production of coal near Pittsburg is estimated at about 3,000,000 of tons, making the total product of the State between ten and eleven million tons.

The annual increase of production of anthracite coal in Pennsylvania is shown in the annexed summary :—

Year.	Tons.	Year.	Tons.	Year.	Tons.
1820.....	365	1834.....	376,000	1848.....	3,089,000
1821.....	1,073	1835.....	560,000	1849.....	3,242,000
1822.....	2,200	1836.....	682,000	1850.....	3,332,000
1823.....	5,800	1837.....	881,000	1851.....	4,418,000
1824.....	9,500	1838.....	759,000	1852.....	4,999,000
1825.....	34,800	1839.....	899,000	1853.....	5,195,000
1826.....	48,000	1840.....	865,000	1854.....	5,847,000
1827.....	63,000	1841.....	953,000	1855.....	6,626,000
1828.....	77,000	1842.....	1,198,000	1856.....	7,258,000
1829.....	171,000	1843.....	1,263,000	1857.....	6,764,000
1830.....	174,000	1844.....	1,631,000	1858.....	7,009,000
1831.....	176,000	1845.....	2,023,000	1859.....	7,626,000
1832.....	363,000	1846.....	2,343,000		
1833.....	487,000	1847.....	2,882,000		

According to the last census, the area of the several States where coal is found, and the coal area of each, and the proportion of coal may be stated as follows :—

States.	Area. Sq. miles.	Coal areas. Sq. miles.	Proportion of coal.
Alabama.....	50,875	3,400	1.14
Georgia.....	58,200	150	1.386
Tennessee.....	44,720	4,300	1.10
Kentucky.....	39,015	13,500	1.3
Virginia.....	64,000	21,195	1.3
Maryland.....	10,829	550	1.20
Ohio.....	38,850	11,900	1.3
Indiana.....	34,800	7,700	1.5
Illinois.....	59,130	44,000	3.4
Pennsylvania.....	43,960	15,437	1.3
Michigan.....	65,520	5,000	1.20
Missouri.....	60,334	6,000	1.10
Total.....	565,233	133,132	Near $\frac{1}{4}$.

North Carolina is reputed to hold about as much coal land as Georgia. Iowa is one of the richest coal States, and has a coal area almost equal to Ohio.

Of the Virginia coal, twelve miles west of Richmond, and extending fifty miles, the seams are 800 feet in thickness, being the deepest mines known in America. In Belgium, some of the mines are known to be from 1,140 to 1,476

feet in depth. In England, 1,000 to 1,794 feet, with an average in Lancashire of 750 feet.

The receipts of Cumberland and other coal, at Baltimore, for the past nine years, to the 31st of December, 1859, have been as follows:—

Year.	Bituminous.	Anthracite.	Year.	Bituminous.	Anthracite.
1851.....	163,855	200,000	1856.....	446,981	266,661
1852.....	256,000	125,000	1857....	444,603	243,482
1853.....	406,000	183,000	1858.....	318,607	256,105
1854.....	451,070	238,740	1859.....	348,821	263,189
1855.....	389,741	265,921			

STATISTICS OF AGRICULTURE, &c.

AGRICULTURE IN THE UNITED STATES.

The Hon. J. THOMPSON, Secretary of the Interior, in his annual report, remarks upon the spread of agricultural science as follows:—

It is impracticable to open and conduct an experimental farm under the direction or supervision of this department, upon which the value of new plants and new theories of cultivation may be tested and determined. This task must be left to practical men who have a direct pecuniary interest. Of such men are the various agricultural associations composed. Each society, in its locality, can cause each new theory, or plant, or seed, to be tested, and it can determine, with ease and certainty, the usefulness and profitableness of each. These peculiar facilities of the agricultural societies of the country have placed this branch of the public service in the position of a compiler of the facts established, and the information obtained, through these agencies and the experience of private individuals

For years seeds and cuttings of foreign and domestic growth have been distributed throughout the country. This has created such an active and extensive demand for them that it was impossible to meet it; and consequently individual enterprise has enlisted in this service, and improved varieties have become articles of commerce in every part of the country. Those who engage in this trade justly complain of the injury done to their interests by a gratuitous distribution by the government of the very articles offered by them in market. The last Congress having greatly reduced the appropriation below former estimates, the policy of distributing seeds of domestic growth was abandoned, and no portion of the appropriation was expended for their purchase. It is believed to be both wise and just to confine operations to the purchase and distribution of such varieties of plants, seeds, cuttings, &c., as have not already been introduced into the country.

The tea seed has been introduced from China, and germinated in houses prepared for that purpose in Washington. The step next to be taken is to convey the plants to suitable localities, and to cause them to be tested under the supervision of intelligent and responsible persons. This will be done at the earliest practicable period, and with no apprehension as to their successful growth in all cases in which proper attention shall be given.

The successful cultivation of the vine in this country no longer remains an experiment. The breadth of land planted in vineyards is every day extending, and the yield is large and remunerative. The estimate is, that we have now more than eleven thousand acres devoted to this culture; and while the product of some vineyards in the most favorable season has been eight hundred gallons to the acre, the average crop per acre of the whole country will compare favorably with that of the most successful wine-producing countries of Europe, and its value is five or six hundred per cent greater at the several places of production.

The different species of native grapes have been sought for, and as far as practicable the value of each for the manufacture of wine has been tested by chemical analysis. The modes of cultivation, and the processes of making and preserving wine, have been examined, and much interesting and valuable information obtained. A large number of cuttings of the best and most approved varieties have been prepared for distribution.

Steps have been taken to introduce from foreign countries a variety of seeds, plants, and trees, which may be usefully cultivated and grown in this country.

TURKISH TOBACCO CULTURE.

The aggregate production of tobacco in the empire of Turkey is about 14,610,000 oke, of about 3 lbs. each, or 43,830,000 lbs. This production has various qualities and destinations, according to provinces in which it is grown. Macedonia and Thessaly, and the northern portions of Anatolia, are the principal places of production. The neighborhoods of Karissa and Armyra, in Thessaly, raise about 2,000,000 oke, or 6,000,000 lbs. annually; of this quantity about 800,000 oke are consumed on the spot, and the remainder seeks a market in Greece and Europe through the port of Valo. The price ranges from three to five piastres the oke. The piastre is about 4 a 5c.; the value is therefore 4 a 7c. per lb. In Macedonia about 3,200,000 oke, or about 9,600,000 lbs., are raised per annum of this quantity—300,000 oke goes to Russia, Austria, and the Donau region. The largest portion, however, finds a market in Constantinople. The local prices of this favorite description ranges from 20 a 50 piastres, or 27 a 70 cts. per lb. On the other hand, the tobacco from the districts of Kavale, Pravista, and Drama, which finds a market almost altogether in Europe, bears a price of not more than 13 cts. per lb. Of the 3,000,000 oke which these districts raise, 600,000 oke goes to France, as much more to Austria and England, and the remainder to Turkey and Egypt. The total export of the port of Salonica, in 1857. reached 480,000 oke, in 12,000 bales, of 160,000 lbs. each. The yearly crop of Anatolia is 4,200,000 oke, or 12,600,000 lbs.; about 1,200,000 oke is consumed in the province, and the balance is exported from Jamsun. The price ranges from \$3 20 a \$4 80 the batmar of 6 oke, or 18 lbs., for the first quality, and \$2 00 a \$2 80 for the 2d quality. Finally, in Satakiek in Syria, the tobacco most highly prized by the Turks is raised to the extent of 700,000 oke first quality, and 600,000 oke 2d quality.

BRITISH WHEAT CROP.

The *Mark Lane Express* remarks:—From the best information we have been able to collect, we set the last English crop at decidedly under an average in bulk, while the weight per bushel is fully three lbs. lighter than an average, so that after allowing for an excess of old wheat on hand at harvest time, we consider we started with about our usual quantity in farmers' hands. The samples vary much, as indicated by the unusual range in our quotations; a few of strong lands, well harvested, are fine, and weigh about 63 lbs., then came the good runs 60 lbs., then the hollow-chested, thin, prematurely ripened, about 58 lbs., and thirdly very many soft, sprouted, badly harvested, down to 55 lbs.; and here we think it worthy of remark, that the want of the usual supply of harvest laborers prevented the quick in-gathering of the crop, already ripe from the ex-

treme heat, and when the violent storms came, after so long a drought, many farmers hurried their crops from the fields. Our best crops are north of Newcastle. In Scotland they are particularly good, Ireland good, Denmark and Sweden splendid in quality and quantity; along the Baltic fine qualities and satisfactory quantities; Holland and Belgium very small; France less than an average in quantity and quality, but the deficiency is made up by the old wheat left over; Spain short; Portugal and Italy very deficient; Africa small; Syria almost a failure; Russia, upon the whole, small, but quality fine; American an average in quantity and fine quality. The wonderful productiveness of the crops of 1856-57-58, but especially of the last two, left us with larger stocks in farmers' hands at harvest time than has been known for years. This we think proved by the facts, that the supplies of English from September till August, both inclusive, in the respective seasons of 1857 to 1859, (years of great crops,) were 5,094,611 qrs. against 5,240,483 qrs. in 1855-56, and 5,215,019 qrs. against 5,326,506 qrs. in 1856-57, and that notwithstanding the growing convictions of the inferiority of the new crop, farmers' deliveries of fine old wheat since harvest have been so abundant at these very moderate rates as to keep it always cheaper than foreign, which has consequently been much neglected.

RICE CULTURE OF GEORGIA.

The *modus operandi* of converting wild swamp lands into fertile rice fields is certainly an interesting one, and deserves a brief notice at the hands of your correspondent. The work of digging canals, throwing up embankments, and removing stumps having been performed, the negroes commence "chopping" or digging the soil. After "chopping" they proceed to "mashing" or leveling the clods of earth, and, that work done, the rice is sown in rows about thirteen inches apart. Planting commences from the 20th of March to the 1st of April. The seed is covered over with a thin coat of earth, and at the next flood tide the water is admitted through the trunk, as it is called, and the field is slowly submerged. The floating weeds, &c., are then raked from the surface, and being placed on the embankment are there dried and burned. The water is allowed to remain on the field until the seed begins to shoot, generally from four to five days, and is then drained off. This is called the "sprout flow." After the plants appear above the ground about an inch or so, the water is let on again and allowed to remain on for from three to seven days. The plants by this time attain a height of three or four inches, and then the water is drained off. This is called the "point flow." The field is then allowed to remain dry until the plants are strong enough to bear hoeing, and the first and second hoeings having been gone through with the field is again flooded. This is called the "long flow." Mr. S. says he allows the water at this stage to rise high above the rice, so as to prevent the floating weeds from entangling in the plants. The weeds having been all brought ashore, the water is gradually lowered until the tops of the plants appear above the surface. The water is kept stationary at this point from ten to twenty days, according to the quality of the soil, and is then drawn off. The field is then allowed to dry, and then follows the third and fourth hoeings, care being taken to remove the weeds, and volunteer rice. The water is

then let on for the fourth time and allowed to remain on until the rice is headed and the blossoms fall.

The harvest generally commences about the first week in September. When the reaping is determined upon the water is all drawn off, and the following day the negroes enter the field with sickle, and in one day the crop is reaped and placed in little heaps upon the stubble. The next day the rice is tied up in sheaves and removed to the barn. The usual mode of transporting it from the field to the barn is upon the heads of the negroes; but in some plantations it is conveyed along the embankments in trucks contrived for the purpose. The harvesting of rice is excessively hard labor; even the negroes sometimes sink under it. As for white men performing the task, it is out of the question; the thing is physically impossible. The work of threshing is pursued at leisure, but harvesting is the work of forty-eight hours, and must be completed within that time, no matter how intense may be the heat of the sun or sultry the weather. The yield varies according to the quality of the soil from 800 to 1,500 pounds of rice to the acre. The land is held very high, some plantations being worth as much as \$200 an acre. The rice raised in this section of the country is acknowledged to be a very superior article, and commands the highest price in the market.

Planting in the open trench is a plan extensively pursued of late years, and the system has been found to work very well in some localities. The difference between planting in the open trench and planting in the manner previously described, consists in "claying" the seed and merging the "sprout" and the "point" flows into one. Water thickened with clay is poured upon the seed until each grain receives a coating sufficient to prevent it from floating when the field is flooded. "Claying" answers all the purpose of covering the seed over with earth, and when the grain is sown in that way all the negroes have to do is to let on the water, and in ten or thirty days thereafter the seed begins to sprout. The water is kept on until the plants are one-and-a-half to two inches high. The subsequent treatment is precisely similar to the other mode. The open trench plan has its advantages and its disadvantages—its advantages in the saving of labor, protecting the rice from the depredations of birds and the injurious effects of freshets; and its disadvantages in promoting the growth of water grass, injuring the ditches, and washing away the embankments. The greatest enemies to the rice planter are the "freshes" and the "salts." In the one case from the great height of water in the river the planter is unable to drain his field properly, and in the other from the stream being too low, the water from the ocean, which is poisonous to the cereal, finds its way up to the plantations and thus suspends all flooding operations. Either of these disasters happening at a critical period causes great loss and anxiety of mind to the planter.

AGRICULTURE IN FRANCE.

The manifesto of the French Emperor in relation to modification in the duties, and improvements in agriculture, has awakened an active spirit in the south and center of France, at Marseilles, Havre, and other ports, and from all the more purely agricultural districts expressions of warm adhesion to the Imperial policy have been made. Already one portion of the "programme" is framed and ready for immediate application, viz., a scheme for cultivating waste lands in

France. A long and interesting report of the ministry is published on this subject, from which it appears that these lands, consisting of about 11,800,000 acres, or one eleventh of the whole territory of France, remain wholly or partially uncultivated. Of this, less than one-half is of any value, the remainder, about seven million acres, consisting of marshes, sandy plains or commons, worth at present about 56½ million dollars, yield on an average yearly 1½ million dollars, or say 24 cents per acre! It is proposed that government shall furnish funds wherever required, and when the communes are too poor to do the work themselves, to drain, clear, and cultivate these territories on condition that one-half the land so reclaimed shall be sold for behoof of government, so as to cover advances. In the meantime two millions of dollars are to be voted by the State for this purpose.

The present government has certainly shown an enlightened spirit in promoting their agricultural progress, without which no nation ever rises to permanent greatness. France is a fine country; the land is generally fertile, the climate genial; true, political circumstances and the existing position of land owners previous to the great revolution, were inimical to all progress, and since that time, the frequent changes and disturbances have had a most evil effect. The minute subdivision of landed property, too, resulting from the law of succession, by which all lands must be equally divided after the possessor's death, among his children, has been a formidable bar to improvement. Farming, besides, has not till lately, been a favorite employment for capital. For some years back, however, the Emperor's policy has been to stimulate agriculture to the utmost. Already existing agricultural schools and colleges have been remodeled and new ones located. Agricultural societies have been formed in every district, and commune and government prizes annually offered for the best stock and crops; improved breeds of sheep and cattle have been introduced, and the newest and best implements; model farms established, and in fact everything that a powerfully organized and centralized power can do, is now in operation. As compared with England, France is greatly behind in agriculture, and as compared with Scotland, immensely so. Draining, the rotation of crops, proper machinery and implements, are all as yet ill understood in France. As to cattle, there is no comparison between the French meat and beef and mutton of "Old England." France, although her territory is about twice as large as England, contains about the same number of sheep—say 30 millions, but the weight of an English sheep averages twice that of a French one, therefore England, in proportion to her territory, produces four times the quantity of mutton that France does—crops, etc., ditto. The grape production is very large, and a great deal of beet-root is cultivated for sugar foolishly enough, seeing that the land on which this root is grown is the finest for the vine, while the home-made sugar is at least 40 per cent dearer than the article can be bought for abroad. The production and consumption of wines in France is very great. Paris alone (with a population of 1,800,000) consumes annually 30 million of gallons, besides a million and a half of alcohol and half a million of cider, all to wash down 56½ millions lbs. of butcher-meat, and 2 million dollars' worth of fish, 4 million dollars of fowl and game, the same value of butter, half as much in eggs, and 400,000 dollars' worth of oysters.

STATISTICS OF POPULATION, &c.

EMIGRATION FROM LIVERPOOL IN 1859.

The official returns of the emigration from Liverpool during the year just closed have now been completed at the government office; and although, on comparison with the year preceding, the numbers in the aggregate do not appear to vary very materially, the variation in the tide of emigration to the different countries has been most marked. The total number of passengers, "under the act," who have taken their departure from the Mersey during the twelve months just elapsed have numbered (inclusive of cabin passengers) 68,035, against 70,466 in 1858, being a decrease of 2,441. During the past year, to the United States, 168 ships, of 286,960 tons, sailed, with 1,561 cabin and 47,137 steerage passengers, "under the act," against, in 1858, 167 ships, of 256,556 tons, with 1,446 cabin and 43,180 steerage passengers, being a falling off of about 300. In "short ships," not "under the act," or submitted to government inspection, 143 vessels sailed in 1859, with 5,203 cabin and 2,283 steerage passengers. These "short ships" include all travelers by the Curard, Canadian, and African mail steamers, &c. To Canada the departures numbered only three vessels "under the act," of 2,859 tons, with 544 steerage passengers, against, in 1858, 7 ships, of 8,027 tons, with 12 cabin and 1,934 steerage passengers. However, in 1859, "short ships" carried to the Canadian provinces 1,958 cabin and 2,118 steerage passengers. To the Australian colonies the greatest falling off has been exhibited, scarcely more than two-thirds the number of emigrants having left the Mersey during the past year. Fifty-two ships, of 72,189 tons, sailed to Victoria, with 508 cabin and 9,883 steerage passengers, against, in 1858, 66 ships, of 90,888 tons, with 690 cabin and 15,662 steerage passengers. To Melbourne 18 "short ships" took their departure, with 32 cabin and 333 steerage passengers. To New South Wales 9 ships, of 10,154 tons, sailed, with 4 cabin and 3,476 steerage passengers—the great proportion being government emigrants, dispatched by the Colonial Land and Emigration Commissioners—against 9 vessels, of 9,579 tons, with a like number of cabin and 3,455 steerage passengers, being a slight improvement over 1858. Only 8 cabin passengers were conveyed to New South Wales in "short ships" during the year. To South Australia 3 ships, of 2,443 tons, were engaged in the conveyance of 1,052 government emigrants, against, in 1858, 5 vessels, of 5,881 tons, with 1,991 passengers, also at the expense of the Emigration Commissioners. None carried out in "short ships." A feature which distinguishes last year's Liverpool emigration has been the dispatch of 6 vessels, of 6,704 tons, which carried out 104 cabin and 1,317 steerage passengers—the same number of sailings with passengers direct being heretofore unheard of. To the Cape of Good Hope the departures comprised 4 vessels, of 2,860 tons, with 7 cabin and 993 steerage passengers, against, in 1858, 6 ships, of 5,420 tons, with 10 cabin and 2,059 steerage passengers—the latter in both years being sent out at the colonial expense—the selections of the commissioner in London, the Hon.

William Field; 10 cabin passengers were, in addition, "short shipped" to the Cape of Good Hope. To the East Indies 3 ships "under the act" were dispatched during the second half of the past year, with 1,544 steerage passengers, all soldiers' wives and children, (which can hardly be classed as passengers,) and 13 "short ships" sailed, with 96 cabin and 20 steerage passengers; the unfortunate Accrington, which has put into the Brazils, with 65 deaths among the passengers, and captain and mate poisoned, was one of the former class. In addition to the foregoing, the following "short ships" have sailed during the year:—To America, 35 ships, with 230 cabin and 38 steerage passengers; to Africa, 12 mail steamships carried 296 cabin passengers; to the West Indies, 5 vessels, with 39 cabin passengers; to New Brunswick, 3 ships, with 31 cabin and 3 steerage passengers; to Nova Scotia, 1 cabin and 4 steerage passengers; to Prince Edward Island, 9 cabin passengers; and to China, 4 cabin passengers; making a grand total, "under the act" and "not under the act," of 10,103 cabin and 71,652 steerage—81,755 passengers, or an average of nearly 7,000 souls per month sailing from Liverpool. With the exception of the melancholy losses of the Royal Charter, Pomona, Indian, &c., there have been no features calling for particular notice in glancing at the emigration for the year, which closes, as usual at this season, at almost its dullest point.

THE MORMONS.

The Mormons, according to their own census, are decreasing in Utah. In 1856 they numbered 38,000; in 1857 only 31,022; and in 1858 only about 30,000. They claim, however, that they are increasing in the country at large, and in the world, and they ascribe the diminution in Utah to temporary causes and absences. It is computed that there are 32,000 in Great Britain and Ireland, and 7,000 on the Continent of Europe, besides some 5,000 in Canada, 4,000 in California, and several thousand in the Eastern States and South America. Altogether they number 126,000. Utah is the only place where they practice polygamy and carry out their theories of civil government as well as of religion, and it is the only place where they do not increase.

SLAVERY IN MISSOURI.

It is ascertained from the Auditor's office that instead of there being a decrease in the number of slaves in the State, there is a considerable increase from 1858 to 1859, as will be seen from the following statement:—

Number of slaves in 1858 as per Auditor's report	101,853
Number in 1859	103,712
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Increase in number.....	1,849
Value of slaves in 1858	\$55,090,028
" " 1859	57,041,600
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Increase of valuation.....	\$1,951,572

LONGEVITY IN PARIS.

A man, named Roger Largois, recently died at Paris, at the exact age of one hundred years. He is said to have been a very remarkable personage, having excelled as painter, engraver, poet, and musician; and yet he was totally unknown to the public, because he would never consent to exhibit or publish any of his productions. His father was a hosier, and destined him for trade, but Roger manifested so strong a taste for arts, that his father, who was in good circumstances, allowed him to follow his bent. On receiving his father's property he resolved to devote himself exclusively to poetry and art. He caused a house to be built on his plans in the Boulevard de Montparnasse, and annexed to it a vast painting room and two picture galleries. There he labored incessantly year after year in painting and engraving; in composing poetry, and in setting it to music. It was chiefly in his walks that he composed his poetry and his music, the rest of his time being passed in his painting-room. Most of the subjects of his paintings are allegorical, but he was also an excellent portrait painter, and he has left not fewer than 49 portraits of his wife, whom he tenderly loved—his rule being to make one on each anniversary of her birthday. The day before his death, he said to his wife, "I shall die to-morrow, my dear Catherine; I feel it, but I have only one regret, and that is to leave you—we have been so happy together!" Then taking his palette, he said, "Remain as you are, I will make a last sketch of you!" And he executed it with marvellous fidelity and power. He leaves a son aged 75, and a grandson nearly 50, and by their efforts, combined with his own frugality, his revenue had increased from 30,000f. to between 50,000f. and 60,000f. These two gentlemen propose to exhibit his paintings and engravings, and to publish his poetry and music. That the works will excite curiosity is not doubted.

HAWAIIAN OR SANDWICH ISLANDS.

The Hawaiian Archipelago consists of twelve islands, which lie in the North Pacific Ocean, between 18° 50' and 22° 20' North latitude, and 154° 55' and 160° 15' West longitude from Greenwich, and stretch along in a direction W. N. W. and E. S. E. about 350 miles, and contain about 6,000 square miles.

Name.	Length.	Breadth.	Ft. high.	Sq. miles.	Population.*
Hawaii.....	88	68	13,953	4,000	24,447
Maui.....	48	29	10,200	600	17,574
Oahu.....	46	23	3,800	520	19,126
Kauai.....	33	28	4,800	520	6,990
Molokai.....	40	9	2,800	170	3,607
Lanai.....	17	9	1,600	100	600
Niihau.....	8	7	800	80	790
Kahoolawe.....	11	8	400	60	....
Molokini.....					
Lehua.....					
Kaula.....					
Nihoa or Bird Island.....					
} Islets scarcely more than barren rocks.					73,134

The average temperature in low southern and western locations, is 75°; in northern and eastern 72°. The lofty mountains are cool, and at their summits

* By official census of 1858.

cold. A summary of meteorological observations, made by the missionaries at Honolulu, from August, 1821, to July, 1822, shows the mean temperature to be 75°; N. E. trade winds three-fourths of the year; rain on forty days; highest heat observed in the shade, 88°, lowest 59°. During the months of January and February, the thermometer sometimes falls to 53° and 54° during the night.

THE CAPITAL OF MOROCCO.

The following is some account of the ancient capital of the Moorish dominion. Morocco, or Merakach, having been ruined by disastrous wars and depopulated by the plague, is now only the shadow of what it formerly was. Leon Africanus says that "it is a city larger than Paris, where the king has his palace, which is more sumptuous and more magnificent than any other in the world." At the commencement of the seventeenth century Morocco had a population of 600,000; it now scarcely reaches 30,000. The city was founded 1073; its walls, which attest its former splendor, embrace a circumference of six miles, and are pierced by eleven double gates flanked by towers; gardens and ruins fill up the greater part of the ground within its walls. The modern city is similar with regard to its architecture to the other cities of the empire; its streets are narrow and irregular; the houses are composed of a court with galleries round it, which lead to long and narrow rooms, the windows of which rarely look into the street. Many of the houses are built of stone, but the great majority are constructed of a kind of mortar composed of sand, lime, and earth, which is beaten hard together between planks placed on either side of the wall as it is being built. There are several large open squares, or market places, in Morocco, but, like the streets, they are neither paved nor shaded. There are several mosques, the principal ones being those of El Koutoubia and Mouzim, that of the Bentous, and that of Sidi Belabess, the patron of the city. The Sultan's palace is outside of the walls; it consists of a vast group of buildings surrounded by pleasure and kitchen gardens. There are also a mosque and large courts, where the Sultan gives his public audience. Like Hue, the capital of Cochin China, all the buildings form a complete labyrinth of walls. The Jews are not well treated in the empire. At Morocco they occupy a special quarter, which is surrounded by a wall, the gate of which is closed at night and during the whole of Saturday, and guarded by a caid. The Jews are the only tinmen and tailors in Morocco; the Moors only exercise the trades of shoemakers, carpenters, masons, locksmiths, and weavers of halds and goudours.

POPULATION OF GEORGIA.

The official table from the census of last year has been published, and shows the following result:—

Whites.....	576,716
Blacks ..	443,745
Free persons of color..	3,337
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Total population in 1859	1,024,005
Representative population	884,957

MERCANTILE MISCELLANIES.

UNITED STATES CENSUS.

The following memorial to Congress was adopted by the New York Chamber of Commerce :—

CHAMBER OF COMMERCE, NEW YORK, Feb. 3d.

To the Honorable the Congress of the United States, in Senate and House of Representatives convened :—

The memorial of the Chamber of Commerce of the State of New York, respectfully represents,—That the laws relating to the Census of the United States, while they require the collection of copious statistics of agriculture and manufactures, make no provision for those of commerce. This omission your memorialists regard as a serious defect. An inspection of these laws will show that they were designed to secure statistics that would exhibit, among other things, a correct and comprehensive view of the wealth and productive capacity of the nation ; but it is manifest that they cannot compass this end without providing for the collection of commercial statistics.

Commerce is one of the most important branches of our productive industry. It is second only to agriculture, and but little, if at all, inferior to that. It employs a vast amount of capital, and produces large annual results to those engaged in it, besides supplying government with revenue. It thus contributes a liberal share to the prosperity of the country, and at the same time enlarges the circle of our enjoyment, by placing within the reach of all the products of every other section of the globe.

Your memorialists respectfully submit that an interest of such magnitude and usefulness should not be overlooked in a professed inventory of the wealth and productive resources of the country. Its statistics are clearly necessary to the completeness of such inventory ; and, if properly collected and digested, they will serve as data of the highest value for the guidance of statesmen and merchants, and, at the same time, essentially aid the student of social science.

It appears to have been the first intention of Congress to include the statistics of commerce in the census of 1850. The preliminary act in relation thereto, passed March 3, 1849, established a Census Board, and charged it with the duty of preparing forms and schedules for enumerating the inhabitants, and for collecting such information as to mines, agriculture, *commerce*, manufactures, education, and other topics, as would exhibit a full view of the pursuits, industry, education, and resources of the country. It would seem that the Census Board, in performing the duty assigned to it, omitted the schedules for collecting commercial statistics. At least, no such schedules are to be found in the general law providing for that census, and every subsequent one, which was passed at the next session of Congress, while all the others named in the preliminary act are included.

Your memorialists are unwilling to believe that this omission is to be attributed to any want of appreciation of the importance of commerce, or the value of its statistics, on the part of Congress and the Census Board, but rather to the difficulty encountered in framing questions that would elicit the information desired. This difficulty, it is believed, is rather imaginary than real. The information sought relates to the extent of commerce, the amount of capital employed in it, and its annual results or gross profits. These three leading classes of facts, and others connected with their subdivision, may be readily ascertained by correct answers to a few simple questions, as a glance at the nature and mechanism of commerce will demonstrate.

Commerce consists in the transportation, sale, and distribution of articles produced in other departments of industry. Mining and agriculture supply

raw materials, the manufacturing arts fit them for consumption by modifying their forms, and commerce changes their locality and ownership. In performing this office it produces wealth, by augmenting the value of the articles that pass through its channels. There are those who believe that commerce is non-productive. They perceive that it neither produces commodities nor changes their forms, and thence infer that instead of adding to the volume of wealth, it diminishes it by drawing its sustenance from other industrial interests. They forget that a change of locality and a change of ownership are just as essential to the ultimate usefulness of commodities as their production or change of form. A chest of tea is the same in quantity and quality when it arrives at New York as when it leaves Canton; but it has more value. Freight, charges, insurance, and commissions are superadded, and unless we are willing to pay a price that will cover the additional cost, we must forego its use. Nor is this all. We must pay, besides, to the tradesman or retailer, a suitable commission for his services and outlays in dividing it up into quantities adapted to our wants. The same is true of every article that passes through the channels of commerce.

From this explanation of the nature of commerce, and the manner in which it aids in the production of wealth, it will be seen that the capital it employs consists, first, in the machinery of transportation, such as railroads, canals, steam-boats, and ships; and, secondly, in the means of exchange, such as warehouses, stocks of goods, and money. Its gross earnings consist, in the transportation department, in freight and charges, insurance, storage, and cartage; in the exchange department, of the gross profits and commissions charged on all sales.

A table for collecting commercial statistics should, therefore, embrace the following inquiries:—

- 1st. As to the usual amount of sales.
- 2d. As to the amount of capital employed.
- 3d. As to the gross annual earnings.

And these leading inquiries should be subdivided so as to ascertain what proportion of the capital is employed in transportation, and what proportion in buying and selling; how much of it consists in real estate and how much in floating capital; what share of the aggregate earnings is derived respectively from transportation and from commission and profits on sales; and how much of the capital employed in transportation is appropriated to land carriage, and how much to water carriage.

A schedule framed in accordance with these views is hereto annexed. It embraces but seven distinct questions, and yet your memorialists believe it will secure statistical results more complete and reliable than any that have hitherto been obtained in relation to this interest in any country, and even more complete than those that have been collected in relation to most other interests. They would, therefore, most respectfully ask your honorable bodies to amend the act providing for the census of 1850, and every subsequent census, passed May 23d, 1850, by adding to its tables the accompanying schedule, and making it a part of said act. And as the first day of June next is the period fixed by law for taking the eighth census of the United States, they would also respectfully urge the necessity of prompt action, to the end that those charged with its preliminary duties may have time to prepare and distribute blanks in conformity with the proposed amendment.

A NEW PROCESS OF PAPER MAKING.

A large factory, capable of making thirty tons of paper per week, has been erected in Bordeaux. The paper is to be made of African plants by the process of M. BOURNEVILLE; fifty tons of these plants are required for thirty tons of paper. The inventor has now a small mill in Marseilles, in which he is making two tons per week, at 30 per cent less than paper of a similar quality can be made from rags.

LOOK TO THE END.

The comprehension of ultimate results renders an individual wise. He who sees nothing beyond immediate advantage or sacrifice, is perpetually feeling the consequences of erroneous steps. He who knows when to incur a heavy expense that is certain to be repaid with extensive profit, becomes a successful man: his success is simply the legitimate result of forecast. It is the same with communities. "The penny wise and pound foolish" policy is the foe of all public improvement, and the city or the State which systematically acts upon such a short-sighted maxim, is sure to lag behind its more liberal rivals. There is too much reason to believe that we have among us a numerous class of people who hang like a dead weight upon the more energetic and enterprising, who comprehend the measures essential to our progress. These misty, leaden eyed, slow-moving, but, doubtless, honest citizens cannot be brought to look to the ends to be attained, except by the most strenuous and persistent efforts. Whatever project involves the expenditure of a few thousands of dollars, is regarded with a suspicious eye, denounced as a selfish speculation, or held up to general execration as a piece of wasteful extravagance, calculated to bring us to bankruptcy. And yet the investment of these thousands may result, or is certain to result, in a profit of millions. If we conclude that we have not a sufficient number of bridges to accommodate trade and travel, and propose to build another, we are met with the awful announcement that the structure will cost a whole hundred thousand dollars! Terrible, crushing expense! Bet let one of the bridges we have been destroyed by fire or other disaster, and before the loss can be replaced, we shall not only lose a few millions in the way of trade, but ordinary travel will be seriously interrupted. This is only one of the numerous illustrations that might be mentioned of a policy which, according to the homely proverb, "saves at the spigget and wastes at the bung."

A city that is filled with the spirit of progress, and controlled by wise and liberal men, is never managed upon such principles. Blessed is that municipal government which knows how to spend. We see some of these governments indulging in the largest expenditure upon objects which will increase the attractions of their cities, and our old fogies denounce them for their extravagance. But the fact is, all the money they lavish is repaid ten-fold, by the increase of the business of their citizens. If they improve their public grounds they increase the value of property and invite new residents by the beauty of the location. If they almost exhaust their treasuries in the construction of lines of railways reaching the wealthy regions of the interior, they look to the end, and feel certain that the bread they have cast upon the waters will return "after many days." This is the spirit that should animate a city that aspires to be a metropolis, and no city in this Union has more need of it than Philadelphia. It is the disagreeable truth, that we do not look to ultimate advantages sufficiently. We are afraid of expenditure, even when we may be assured the money expended will be a profitable investment. We are not ready to come forward as we ought to do, and furnish the sinews for enterprises that are calculated to advance the power and prosperity of the city. Too much begging and pleading is necessary when we want capital for great undertakings. This can only be cured by teaching our people to look more to the end.

THE "CIGAR" STEAMSHIP.

The tapering ends of this vessel have generally been described as cones, says the Baltimore *Patriot*, but this we understand to be an error. The resistance to the passage of a conical body through the water is quite equal to that which a cylinder would afford, if propelled butt-end foremost, because the pressure of the fluid upon every inch of conical surface would necessarily be continuous. But the two ends of this curiously constructed ship are parabolic spindles.

It would appear that the parabolic spindle adopted by the Messrs. Winans is generated by a very flat parabola, whose co-ordinate is very extended, so that though the general shape of the two ends of their vessel seem to be conical, they are not so. In no other way could the curve which they need be generated. It is by absolute experiment that they arrived at a knowledge of this fact. The particular character of the parabolic spindle adopted by them is a matter within their own keeping, and very properly so.

Having attained the great desideratum of avoiding pitching and falling, or threshing the waves lengthwise, and that by adopting parabolic-spindle-shaped ends, the next question arose as to the best shape for the center of the vessel. The cylinder answered this question. There is the least possible resistance of the water to the sides of a cylinder, when at rest in the fluid—that is, it tends to zero, because of the want of adhering capacity in the water for this form.

Again, in adopting the cylindrical form for the center or containing part of the vessel, the center of gravity fell below the center of flotation, and of necessity such a body could not turn over in the direction of the radii of the cylinder. An experiment at sea has fully proved its capacity to resist a rotating motion. All the effect of the wave upon the bottom of the cylindrical part of the vessel was to lift up the whole body and to let it sink again, and so on alternately with every wave and its successor. It is true the vessel listed slightly when the wind was on her beam, but that was owing to the obstructions furnished to the gale by the life-boats, which were swung up very high, when they could have been hung within five feet of the surface of the sea with perfect safety.

On her late experimental trip, she behaved in all directions of the wind with perfect buoyancy, rising and falling alternately with the advancing and retreating wave, without the least pitching motion. A tumbler of water set upon a table in her cabin, lost not a drop of its contents. There was not the slightest difficulty in walking, either in the cabin or on the hurricane deck thrown up over the cylindrical part of the vessel, even when the storm was at its height. All this result, obtained too in a chopping sea, like that in the Straits of Dover, or in the Irish Channel, is in strict conformity with the law which governs the flotation of cylindrical and parabolic-spindle-shaped bodies. It is a calculable result, and doubtless the inventors have fully ascertained before hand what their experiments have since so satisfactorily verified.

The utility of the spindle-shaped ends into which the cylinder terminates, will now be realized, if the cylinder is propelled through disturbed water. They prevent the waves from pitching the cylinder longitudinally, as has been seen, by their dispersive power over the billows, and therefore, there is no more strain lengthwise upon it than when the water is at rest. There is no part of it below the center of gravity ever out of water, nor can it be.

The resistibility of the cylinder and its parabolic spindles, under the most try-

ing circumstances, was proved in the late trial trip of this vessel. There was no yielding, no jarring. Every part of her was as firm as though she was a solid mass of iron. The working of the machinery was not felt, notwithstanding four piston rods were driving the cranks at the same moment. The diaphragms, or partitions of iron across the vessel, in order to create water tight compartments serve in some measure to stay the shell of the cylinder.

We now come to the propelling instrument. In the center of the vessel, as it is now constructed, is a drum of the same diameter of the cylinder, revolving on a shaft in the line of its axis, and whose periphery moves in a water joint. The breadth of the drum bears a relative proportion to its diameter and to the length of the cylinder. What that proportion ought to be in all cases, has probably not been finally decided by the inventors. It will no doubt be reduced by them to an invariable quantity before they close their labors. The paddles or driving-fins are placed upon the face of the periphery of this drum. The angle which they should make with the axis of the drum or cylinder in order to get the greatest pitch, as it is technically called—that is, to propel the vessel the greatest distance in one revolution of the drum—has been one of the most difficult problems to be solved about this whole invention. They were first placed at such an acute angle with the axis as to drive the vessel thirty-nine feet through the water at one turn of the drum, but the slip of the water upon the paddles was so great as to require an undesirable velocity in the revolution of the drum. The inventors continued to alter their angle until they can now send their vessel forward at one turn of the drum sixty-five feet, at a moderate working velocity, and that, too, with scarcely any lift of water.

The body of the vessel is amply lighted by dead eyes or circular panes of thick glass. The access to the cabins is by two hatchways towards the spindle parts of the vessel, and in the middle by a hollow tower of considerable height, through which you may mount up to a platform. These entrances are closable by water-tight doors in case of necessity. An ample supply of air to the cabins is conveyed down through the tower, above which is suspended a tell-tale compass, out of the influence of the hull of the vessel. The smoke-pipes and the tower may be regarded as parts of the vessel in extension, and are so staunchly built as to make it impossible for any wave, even if it were to break over the whole vessel, to displace them. But this whole apparatus may be modified very materially, for in her late experimental trip the heaviest waves did not reach higher than two or three feet above the water-line, so buoyant was she.

We learn it is the intention of the Messrs. Winans to cut her transversely in the middle, and insert a cylindrical length of one hundred and twenty feet, and if her speed is not retarded thereby, they may insert another tube of the same length. Their object is to ascertain the maximum length that a tube of sixteen feet diameter will bear, with the minimum resistance of the water to the whole bulk, when propelled by a given power. In the change now contemplated the propeller will be thrown one hundred and twenty feet from the center, where it now is, and it will remain to be seen what effect it will have upon her speed. It may be that greater speed may be attained thereby. The object of the inventors, we learn, is to ascertain the best position of the propeller for effecting the highest speed with the least power being brought to bear upon a cylinder of the

greatest length in proportion to its diameter, so that these problems being at once definitively settled, by actual experiment, vessels may hereafter be built of any dimensions with the exactness of a pattern.

DEFECTS OF CALF-SKIN LEATHER.

We have heard of persons purchasing several pair of boots at once, in order to lay some of them away for long keeping, under the impression that the leather, when kept in a dry situation, improved in quality by age, like oil-cloth. Upon inquiry, we find that such notions are very generally entertained, but why this should be so we cannot imagine, for they are the very reverse of all facts and experience in the case; and we call attention to this question for the first time, we believe, as "a word of warning." Calf skin leather, instead of improving in quality with age, when made into boots, deteriorates rapidly. It is subject to a species of dry rot—*eremacansis*; and in the course of three years it becomes as tender as a piece of brown paper. Dealers in boots and shoes experience a considerable loss from this cause when such articles are left on their hands for more than two years. This dry rot in calf-skin boots first appears at the edge, near the soles, in the form of a black glassy sweat, resembling varnish, and from thence it gradually proceeds until the whole leather becomes rotten. The application of grease rather accelerates than arrests the progress of decay; such leather endures much longer when worn on the feet than when laid aside in a dry situation, but whether this decay is caused by the grease used by the curriers, or in some peculiarity in the skin, is not known at present. Cow-skin and kip leather do not seem to be subject to this rapid deterioration, but all kinds of calf-skin, even the very best French, is just as subject to it as the poorest qualities.

This is a subject deserving of practical scientific investigation, in order to discover some remedy for the evil. At present, the practical application of this information by purchasers of calf-skin boots and shoes, is an easy matter—be careful not to buy aged articles.

SELF-CONTROL.

A merchant in London had a dispute with a Quaker respecting the settlement of an account. The merchant was determined to bring the account into court, a proceeding which the Quaker earnestly deprecated, using every argument in his power to convince the merchant of his error; but the latter was inflexible. Desirous to make a last effort, the Quaker called at his house one morning, and inquired of the servant if his master was at home. The merchant hearing the inquiry, and knowing the voice, called out from the top of the stairs, "Tell that rascal I am not at home." The Quaker, looking up to him, calmly said, "Well, friend, God put thee in a better mind." The merchant, struck afterward with the meekness of the reply, and having more deliberately investigated the matter, became convinced that the Quaker was right, and that he was wrong. He requested to see him, and, after acknowledging his error, he said:—"I have one question to ask you—how were you able, with such patience, on various occasions, to bear my abuse?" "Friend," replied the Quaker, "I will tell thee; I was naturally as hot and violent as thou art. I knew that to indulge this temper was sinful; and I found it was imprudent. I observed that men in a passion always spake aloud; and I thought if I controlled my voice I should repress my

passion. I have, therefore, made it a rule never to let my voice rise above a certain key; and, by a careful observance of this rule, I have, by the blessing of God, entirely mastered my natural temper." The Quaker reasoned philosophically, and the merchant, as every one else may do, benefited by his example.

THE HONORS OF INDUSTRY.

There is no discredit, but honor, in every right walk of industry, whether it be in tilling the ground, making tools, weaving fabrics, or selling the products behind a counter. A youth may handle a yard stick, or measure a piece of ribbon; and there will be no discredit in doing so, unless he allows his mind to have no higher range than the stick and ribbon; to be as short as the one, and as narrow as the other. "Let not those blush who *have*," said Fuller, "but those who *have not* a lawful calling." And Bishop Hall said, "Sweet is the destiny of all trades, whether of the brow or of the mind." Men who have raised themselves from a humble calling need not be ashamed, but rather ought to be proud of the difficulties they have surmounted. The laborer on his feet stands higher than the nobleman on his knees. An American President, when asked what was his coat-of-arms, remembering that he had been a hewer of wood in his youth, replied, "A pair of shirt sleeves." Lord Tenterden was proud to point out to his son the shop in which his father had shaved for a penny. A French doctor once taunted Flechier, Bishop of Nismes, who had been a tallow-chandler in his youth, with the meanness of his origin, to which Flechier replied, "If you had been born in the same condition that I was, you would still have been but a maker of candles." Some small spirits, ashamed of their origin, are always striving to conceal it, and by the very efforts they make to do so, betray themselves, like that worthy but stupid Yorkshire dyer, who, having gained his money by honest chimney-sweeping, and feeling ashamed of chimneys, built his house without one, sending all his smoke into the shaft of his dyeworks.

IRRIGATING TOWER AT LYONS.

A new iron tower has been erected at Lyons, France, on the hill of La Croix Rousee, and it is designed to raise the waters of the Rhone to a height of 490 feet, for subsequent distribution on the high grounds of Fourvieres, St. Jus, St. Irenee, Oullins, and Ecully. The volume thus raised amounts to from 540,000 to 660,000 gallons every twenty-four hours. The total weight of the structure is about 110 tons. The tower consists of a center column, 2 feet 3 inches diameter, of hollow cast-iron, around which are arranged, in the form of a hexagon, six smaller columns of about 9 inches diameter, braced and tied together with wrought-iron connecting-rods. On the top of these columns is fixed a tank of wrought-iron, 11 feet 6 inches wide by 10 feet deep, having ascending and descending pipes of cast-iron, 12 inches diameter. Beneath this tank is an open gallery, to which access is gained by a cast-iron spiral staircase winding round the center shaft. The height to the gallery floor is 180 feet, and the total height to the top of the tank is 199 feet. We may observe, in addition, that this tower only forms a small detail of the great works of water supply lately executed. These consist of—1. A filtering apparatus, capable of filtering 5,500,000 gallons per twenty hours. 2. Three Cornish pumping engines, of 170 horse-power each. 3. Yards of pipes, 98,370—ranging from 3 inches to 3 feet diameter. 4. Yards (liral) of sewers, 21,860. 5. A system of supply at high pressure to the third story, in two services—low service and high service. 6. Monumental fountains, hydrants, street cocks, &c. The whole of this vast system of distribution cost \$18,000,000; and excepting some details, such as the tower we have been describing, was completed in the short space of three years.

THE BOOK TRADE.

- 1.—*The Eighteen Christian Centuries.* By the Rev. JAMES WHITE, author of a "History of France." From the second Edinburgh edition. 12mo., pp. 526. New York: D. Appleton & Co.

This truly valuable work, which has been received with so much favor in Great Britain, has just been reprinted here by the Messrs. Appleton. Commencing with the birth of Christ, the reverend author individualizes the centuries as they appear on the roll, not by affixing to them any arbitrary marks, but by grouping historically each successive generation with the impress of the hour; the great thoughts and high aspirations, also the struggles and crimes of our ancestral ages. In perusing this history, it is instructive to note the immense differences which intervals of a few years introduce. As an evidence of this, the author remarks, "It cannot be doubted that each century or considerable period has its prevailing thought—a thought which it works out in almost all the ramifications of its course—which it receives from its predecessor in a totally different shape, and passes on to its successor in a still more altered form. Else why do we find the faith of one generation the ridicule and laughing-stock of the next? How did knighthood rise into the heroic regions of chivalry, and then sink, in a succeeding period, into the domain of burlesque? How did aristocracy in one age concentrate into kingship in another? And in the third, how did the golden ring of sovereignty lose its controlling power, and republics take their rise?" What a comment these times on the period of those old tyrants, who lived as it were in the dreadful privacy of some fabled deity, but whose every whisper or motion were felt at the farthest end of their empires, by the unhappiness they occasioned! The volume is marked throughout by those English characteristics of conciseness and pith, and forms really a bright spot in this waste of literature.

- 2.—*A Narrative of the Discovery of the Fate of Sir John Franklin and his Companions.* By Captain McCLINTOCK, R. N., with maps and illustrations. 12mo., pp. 372. Boston: Ticknor & Fields.

The lively interest attached to the heroic efforts made during the last twelve years to discover a northeastern passage, as commenced by Sir John Franklin, and ended with Captain McClintock, has been felt by almost every member of the British nation and our own. Although adding prodigiously to geographic knowledge, it has proved little else than a school for testing, by the severest trials and self-sacrifices, the resources and endurance of many brave men—many of whom have fallen victims to their own enthusiasm. As the last page of the history of these frozen regions, and as containing a record of the last days of Sir John Franklin, it is interesting, although, in our opinion, not to be compared with the volume published by Dr. Kane. Capt. McClintock, by the use of maps, points out his own voyage and that of his predecessors, which will be found to differ widely from the suppositious ideas hitherto obtained respecting the route of Sir John. It will be found a plain, unvarnished narrative, filled with startling adventure, and imparting considerable information respecting the zoology and geology of those frozen regions.

3.—*On the Origin of Species*, by means of Natural Selection ; or, The Preservation of Favored Races in the Struggle for Life. By CHARLES DARWIN, M. A., author of "Journal of Researches during H. M. S. Beagle's Voyage Round the World." 12mo., pp. 424. New York : D. Appleton & Co.

The origin of species, the mutual affinities of organic beings, or their embryological relations, geological succession, and other such facts, has long been the study of naturalists, the majority of whom, in showing how the innumerable species inhabiting this globe have been modified, so as to acquire that perfection of structure and adaptation to their own particular locality, attribute mainly the external conditions, such as food, climate, &c., as the cause of the great diversity. Mr. Darwin admits this only in a limited sense, and endeavors to prove agencies far more potent than these in the co-adaptation of organic beings to each other, and to their physical conditions of life. Some of these chapters are exceedingly interesting, and, we should say, of the highest importance to all—as determining the present welfare, and future success and modification of the many animals around us, and showing how a simple being can be changed and perfected into a highly developed being. It is to the increased attention to the character of the offspring of our domestic animals, that so much has been accomplished in the way of improvement, and that we have become witnesses to the fact, that our own race-horses now surpass in fleetness and size the parent Arab stock ; also that our cattle have much increased in weight and early maturity, compared with the stock formerly kept in this country. Mr. Darwin does not jump at conclusions ; on the contrary, his theories evince careful study and research.

4.—*Poems*. By the author of "A Life for a Life," "John Halifax, Gentleman," etc., etc. 12mo., pp. 278. Boston : Ticknor & Fields.

The most of these poems, the author tells us, originally appeared in Chambers' Journal, and elsewhere, anonymously. By this time the public ought to be well prepared to appreciate the claim of Miss Muloch to poetic merit, as many of her pieces have had a wide circulation as they appeared—some of them having induced many inquiries as to the authorship, as those who have admired "Phillip my King," the first piece in the volume, will well remember. The volume is included in the edition of blue and gold being published by Messrs. Ticknor & Fields, which has been received with so much favor by the public.

5.—*Poems*. By SYDNEY DOBELL. 18mo., pp. 544. Boston : Ticknor & Fields.

This Sydney Dobell is the young poet who some time back had the distinction of being the object of attack and criticism of nearly every magazine and newspaper in England, but nevertheless, as always happens, he has outlived the storm, until at last he has become recognized by the higher class of judges as an apt aspirant for even the honors of an autocrat of poesy. This volume, in addition to "Balder," and "The Roman," two dramatic poems, contains "Lyrics," numbering over forty pieces, comprising sonnets of the war, and other poems, reflecting the times in which they were written. Many of these pieces we consider fine specimens of their class, such as "The Mother's Lesson," "Tommy's Dead," etc.