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CONTENTS OF NO. II., VOL. XX.

ARTICLES.

MERCANTILE LAW CASES.

COMMERCIAL CHRONICLE AND REVIEW.

HUNT'S

MERCHANTS' MAGAZINE

AND

COMMERCIAL REVIEW.

FEBRUARY, 1849.

ART. I.—SURVEY OF THE COAST OF THE UNITED STATES.

It is a singular fact in the history of our institutions, that whenever scientific projects have been recommended or entertained by the government, they have constantly been resisted by Congress, at least by the popular branch of it; that the appropriations for such purposes have always been granted with reluctance, and their aims and uses discussed with suspicion and disfavor. Nor has the effect of such conduct on the part of Congress been less uniform than its cause; for, as certainly as such establishments have once been formed and got footing, so certainly, notwithstanding the continued resistance of the Representatives, have they grown and magnified themselves, until by their own influence, connections and patronage, they have not only secured their existence, but been able to defy all opposition. In regard to such institutions, *c'est le premier pas qui coute*—once begun and there is no fear of their future destiny. This state of things has resulted mainly from the jealousy which the legislature always entertain of executive usurpation, and which has compelled the latter to advance projects both honorable, necessary, and of public utility, under covert and feigned pretences. The first organization of such projects has therefore been defective, inasmuch as it has generally been both inapplicable and inadequate, and the original evil has been augmented and perpetuated by the unavailing opposition of Congress.

As examples of the truth of what has been stated, we may refer to the Military Academy and the Coast Survey, with its not less important and expensive accompaniment of Weights and Measures.

The first of these institutions was originally a voluntary association of officers of the army for scientific improvement, commenced in 1802, under the patronage and direction of General Williams, then Chief of the Corps of Engineers. It has gradually attained its present rank and usefulness, but has not been the less an example of the truth of our remark, as to legislative opposition. Its origin was obliged to be masked as a private

military association, not deriving any support from the government. For several years its appropriations were trifling and covert, and subsequently it has more than once been a subject of legislative censure, and the funds necessary for its support been in no little jeopardy.

The other scientific work to which we have alluded (the Coast Survey) escaped notice for several years, owing to the time necessarily spent in preparation and procuring instruments; to the excitement of the war, in which the country was then engaged; and to the state of public knowledge then existing upon such subjects.* At that time the word "survey" conveyed the notion of a temporary and limited operation; and the general idea then might have been, and probably was, that the coast of the United States could be surveyed for all practical purposes, in the same time, and in much the same manner, as Landers' exploration of Africa, or Ross, Wilkes, Parry, and Franklin's surveys of the Polar regions. As soon, however, as the survey of the coast came under the surveillance of the House of Representatives, it underwent a domiciliary visit, became the subject of unfavorable and mistaken animadversion, and was suspended within a year after actual operations had been commenced. After an interruption of fifteen years it was recommenced in 1832, under the patronage of that President whose will, sometimes following, and sometimes coercing public opinion, has left so many traces among the affairs of the time. Since then, the Coast Survey has underwent a scrutiny by the House of Representatives, has once had its appropriations refused, and has maintained its position only by dint of personal influence and exertion.

Of the first of these national institutions it is not now our intention to speak. It does not fall properly within the line of our publication, the subjects of which are more especially commercial. No charge or insinuation has as yet been ever brought against it for lack of proper or economical management. We believe it to be essentially necessary to the culture and reputation of the country, and heartily wish it continued success.

In regard to the other, the case is entirely different. Although its proper execution require high knowledge of the principles of science and of practical methods, with which we do not possess an extensive or intimate acquaintance, yet its purposes and results are decidedly commercial, and are fairly connected with the interests of the portion of the community who are our patrons; and we propose in the present paper to take some notice of the work in an economical point of view, in regard to its expense, its management, and its results. Until recently, such a notice would have been premature. While the work was yet struggling for its existence, with small appropriations, a superintendent, who, though of high scientific character, was nevertheless a foreigner, and somewhat impracticable in his habits, it would have been found difficult to procure sufficient data upon which to form an unbiased opinion. Within the last four years, the case has become entirely different. The annual appro-

* The language used in the different public documents of this period, sufficiently indicate the views of the government. To survey "*the coast with the adjacent shoals and soundings*," (Act of 1807,) "*and shall be deemed to provide for the survey of the coasts of Florida*," (Act of 1832.) This last provision of the Congress of 1832, in regard to the coast of Florida, seems nonsense *now*, when without either notice or authority, a party of the Coast Survey has been dispatched to California, before any other act of sovereignty had been exercised by the government.

priation growing regularly, year by year, is now more than eight times its original amount, making, with the increase derived from the Navy Department, and the Revenue Bureau of the Treasury Department, a gross sum of near $300,000. In this case, with a fleet of sixteen sail, a *personnel* greater than either of the staff corps of the army, and the superintendence in the hands of a person, whose connections are amongst the most influential of the nation, it seems the duty of some one journalist to give the public notice of a work in which malversations may be so easily screened from observation, and the proper execution of which affects so deeply the interests of commerce and the country. It is, perhaps, the more necessary to present such a notice now, not only because some attempts at an investigation of the concerns of the Survey, made during the last session of Congress, seem to have been put down in a way which indicated the exertion of official and personal influence, and because, so far as the press has as yet been concerned, the notices have assumed so decidedly the character which is usually denominated puffing, as to indicate very certainly from what source they have emanated.*

We shall endeavor to make this notice as brief as possible, relying mainly, if not wholly, upon the *printed* documents of the Survey, or such equally public information as may at least easily be submitted to inspection and reference.

The law authorizing the survey of the coast was passed February 10th, 1807. The words indicate distinctly that it was intended chiefly for maritime purposes, and those of defence; and that a geodetique operation, such as was commenced under its authority, had not been contemplated or understood by the government.

The law appropriated $50,000 for the Survey, which is to be executed under the direction of the President. Nothing was done under this authority till May, 1811, when Professor Hassler was sent to England to procure the necessary instruments. They were made principally in England, under his own direction, and he returned with them to this country in October, 1815.

Much fault seems to have been found with Mr. Hassler, on account of the time spent on this mission; but when we consider the state of the world at that time, engaged as it then was in a general war, and that the manufacture of instruments, of the delicacy required in such operations, was then in its infancy, the time consumed does not appear unreasonable. The agent appears also from his correspondence to have been neglected, and left unfurnished of means, producing considerable delay and increased expense. The whole expense incurred in procuring the instruments amounted to $37,549.

After a good deal of preliminary discussion, and some delay in waiting for the appropriation, Mr. Hassler was appointed in May, 1816, to superintend the Survey. The rest of that year was spent in organizing and reconnoitring, so that active operations in the field did not commence till May, 1817. In that year a beginning was made in the neighborhood of

* The most important of these notices are an article from the Princeton Review, for April, 1845, entitled the Coast Survey; another of the ensuing year from Silliman's Journal; and a third in the American Almanac for 1849. The first of these was written by Professor Henry, and the two last by Lieut. C. H. Davis, of the navy. The two first were printed in a pamphlet form, and circulated very extensively among members of Congress a nd others. We suppose it is intended to make the same disposition of the last.

New York, and much work done. A large surface of the most important part of the coast had been covered with primary and secondary triangles, pyrometrical experiments made for determining the expansion of the bars to be used in measuring the bases, two bases approximately measured, and a sufficient advance made in the work both to develope what might have been defective in its conception, and to suggest the proper remedy. But the work thus done was only preliminary, and showed no actual result to the country.

The superintendent had been busily engaged in laying the foundation of an extensive building, but the government expected a furnished house. In consequence, a bill was passed in April, 1818, prohibiting the employment in the Survey of other persons than officers of the army and navy, which at once deprived the superintendent of his position, and put an end to the work. This unfortunate conclusion, though it may be justly attributed to the misinformation of the Secretary of the Treasury, was nevertheless in great part due to other causes. The peace of 1815 had left large numbers of military engineers, whose corps had been much augmented during the preceding wars of the continent, without professional employment; and the governments to which they belonged, particularly that of France, with prudent foresight, instead of diminishing these establishments, directed their energies into a new channel, and employed them in works of public improvement. A French engineer officer of high rank had been engaged by the general government to project a system of fortifications on the coast and frontier, and several officers of inferior grade were employed upon the public works in New York and elsewhere. Under such circumstances, it was but natural that the officers of our own army and navy should look upon a work like the Coast Survey as their peculiar property, and endeavor to place themselves at its head; and there is no doubt that the suspension of the work at that day, was in a great measure due to the operation of such a feeling.

The law of 1818 authorized the employment of officers of the army and navy, and some detached surveys were made by them; but there was no general system. The works done were unconnected, executed by different persons and different methods, without any supervision, and, as may naturally be expected, at great expense, and to little purpose. The original project was lost sight of altogether, and the department having charge of it did not, in its annual report, deign a notice either of its existence or demise.

For a few years the superintendent was retained in the public employment as Astronomer, under the commission for fixing the boundary under the 5th article of the Treaty of Ghent; and though in straitened circumstances, continued to maintain a high character, both for science and integrity, throughout the country. In 1818 an account of pyrometrical experiments, made on the Bars of the Base apparatus, was published in the transactions of the American Philosophical Society without attracting much attention.* In 1825 there was published, through the same medium, "Papers on various subjects connected with the Coast Survey," which, though communicated in 1820, were not published till that year, and indeed would probably not have been published in these transactions at all,

* This volume, though bearing the date of 1818, was probably not published till a year or two afterwards.

had they not been asked for publication by another journal. These papers attracted immediate attention in Europe, as both the instruments and methods, though ten years had then elapsed since their construction and adaptation, were confessedly in advance of the science of the time. The Bulletin des Sciences, the Revue Encyclopedique, the Astronomische Nachrichten, immediately noticed, in terms of the highest commendation, the description of a work, which in our own country was published with much reluctance in the only scientific journal then in existence.

During the last years of Mr. Adams' administration, the attention of Congress had been directed to the great discrepancy existing among the standards of weights and measures in use throughout the country; and in the second year of the succeeding presidency, (May, 1830,) a resolution was passed directing an examination and comparison of the various measures then in use at the different custom-houses. This examination was entrusted to Mr. Hassler by the then Secretary of the Treasury, Mr. S. D. Ingham, of Pennsylvania.

Few of the statesmen of this or of other nations, have been men of attainments in science. Neither the education nor pursuits of such men lead them among material agencies, and when they have to deal with scientific subjects, the governing motive is generally a regard to their own popularity and aggrandizement. A secretary who had earned his position from a regard to economy and thrift, would be apt to strangle projects of this character by stinting their means; while a mere politician would put them more directly to the same use, as opportunities of exercising patronage and rewarding his adherents. When the project for reforming the standards originated, it was fortunate that the country had such a man as Mr. Ingham at the head of the Treasury Department. With more knowledge of science than usually falls to the lot of secretaries, he was nevertheless practical in all his views, and as a manufacturer and a man of business familiar with the wants and interests of the industrial and commercial classes. Had the examination been entrusted to an uninformed or empirical person, the results would have been unsatisfactory for ultimate determinations, and the standards might have remained in the same state as at first. The measures used, particularly those of the yard, bushel, and gallon, were gross and unequal, not entitled to, and scarce susceptible of, the nice comparisons to which they were subjected. Mr. Hassler, however, was aware of the importance of the subject, and the methods to be employed. There being no sufficiently accurate balances in the country, he had constructed here sets of hydrostatic balances, by which all delay in waiting for those of the ordinary construction was avoided, and determinations even more accurate were arrived at. The execution of this work brought him to Washington, where his skill, industry, and resources, fell more directly under the eye of the heads of government, and he was better able to explain what had actually been done in the unfortunately pretermitted survey of the coast. About this time, too, (or, indeed, several years before,)* the army, by whom, even according to the law of 1818, the survey of the coast might have been continued, began to fear lest one of their important privileges, that of conducting the survey, might not have become forfeited by *disuser*. The survey of the coast began again to be spoken of, its discontinuance

* Vide Col. Roberdeau's paper, read before the Columbian Institute December, 1826.

regretted. Mr. Ingham, while in office, and even after his retirement, continued to exert his influence in recommending it to public consideration; and Mr. Southard, Mr. Clay, and other distinguished persons, also lent their influence to recommence the work.

The detailed report of the examination of weights and measures, made in January, 1832, showed in a clear light, the science, skill, and resources of Mr. Hassler, as well as the injustice which the government had been guilty of towards him in 1818. Finally, the project of renewing the survey upon the original plan attracted the favorable notice of the President and Congress, and in July, 1832, a law was passed removing the restriction which had limited its execution to officers of the army and navy, and appropriating $20,000 for the expenditure of that year. Mr. Hassler was appointed superintendent in August, 1832, and continued in the office till his death, in November, 1843.

It can easily be conceived, that a project, recommenced under such peculiar circumstances, must be embarrassed at its outset. The army or navy, or either of them, had been authorized, under the law of 1818, to continue the survey, and to have asked appropriations for such purposes, which would as certainly have been granted. They had, however, not done so. They neither recommended any new plan of operations, nor followed the one which had been already marked out by the first superintendent; and when the work recommenced, they found themselves in a position, which a little foresight on their part might have made less unpleasant. They were obliged, for a time, at least, (and after a preparation of fourteen years,) to become subordinate, instead of leading; and the aspirations from this quarter were more than sufficient to disturb the atmosphere about the superintendent at the recommencement of his labors, and suffered no diminution during its continuance.

In September, 1832, Mr. Hassler commenced the survey with only two assistants, a lieutenant of infantry and a passed midshipman. The operations of this year were limited to finding and establishing signals at the points used in 1817. In the succeeding year he took the field with a larger party, but much delay was experienced in consequence of the necessity of bringing together and repairing the instruments of the collection of 1815, which had been used at different places, and by different persons. In the succeeding year a base was measured on Fire Island beach, and a naval party, under the command of Commander Gedney, added to the work. The *personnel* of the Survey went on increasing from year to year, as the organization improved and extended itself, till 1843, (the year of Mr. Hassler's death,) when there were employed twenty-seven civil assistants, and about eighteen officers of the navy, four vessels being then engaged in sounding.

During the period of Mr. Hassler's superintendence, the main triangulation had been carried from Point Judith to below Philadelphia, in the Delaware; and the secondary triangulation, commencing at the same point northward, and covering the sea-coast, as well as the shores of Long Island Sound and the Delaware, reached southward as far as Capes May and Henlopen, and to Annapolis in the Chesapeake.

A reconnaissance had also been made in North Carolina, and the site of a base been selected upon which to ground the work in that quarter.

Four sheets of the large map of New York Bay and harbor were fin-

ished, and the reduced sheets of New York Bay and Long Island were ready for the engraver, as well as the whole of Delaware Bay.*

The soundings of the outer coast had been carried far enough seaward for purposes of navigation, and the work was progressing in a manner both efficient and creditable. The weights and measures intended for the custom-houses had been completed, and preliminary steps taken to commence those intended for the States. A set of decimal ounce weights had been made for the Mint. Copies of the new standards, with a large balance of the most delicate construction, had been presented to the British government, in the hope of procuring copies of the new English standards in return; a hope which, however, has not yet been realized. The whole amount of appropriations for the Survey from its commencement being $881,549, to which is to be added about $287,000 for equipments and pay of the naval parties employed in sounding.†

During the whole of this period of eleven years, there seems to have arisen an uninterrupted series of misunderstandings between the different departments to whom the execution of the work was entrusted, and the Superintendent of the Survey. These misunderstandings gave rise to a vexatious correspondence, generally about matters of small moment, and almost always terminating in the department conceding the point which had occasioned the dispute. The general superintendence of the work, as concerning most intimately the commercial interests of the country, had originally been assigned to the Treasury Department; but within two years after its recommencement in 1832, it had been transferred to the Navy Department, and again at short notice sent back to the Treasury. These changes were doubtless made to avoid difficulties in the settlement of accounts, where the usages of one department having reference to a particular class of expenditure, may, in some cases, be more available than those of another. This expedient tended, however, rather to embarrass than to facilitate. No new branch of the public service can ever at once come fairly under general regulation as to its accounts, and it requires time to fix rules which will prevent fraud and abuses, without hampering and rendering inefficient the officers in their more important duties. Had the suspended accounts of the Survey been left subject to the decision of the Auditors and Comptrollers of the Treasury, the work would have been ended ere it had well began.‡ At this time, as is the case in all

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* Some slight change in the conformation of the shores near Sandy Hook were discovered, and the plates left by Mr. Hassler were altered accordingly. This occasioned a correspondence between the Chamber of Commerce of New York and the Superintendent of the Coast Survey, and made the name of the new superintendent necessary upon the sheets of the old work. At Sandy Hook, the shores within a certain limit are never two years precisely alike—Spermaceti Cove and Shrewsbury Bay alternately advancing and receding, and occasionally running into each other. It was an approximation of this kind that enabled Col. M'Lane, then of New Jersey, during the war of the Revolution, to give New York notice of the approach of a British fleet.

† Part of appropriation expended for instruments during the following years:—

1807.....	$37,54)	1835.....	$30,000	1840.....	$100,000
1818.....	24,000	1836.....	80,000	1841.....	100,000
1832...	20,000	1837.....	60,000	1842.....	100,000
1833.....	20,000	1838.....	90,000	1843.....	100,000
1834.....	30,000	1839.....	90,000		

‡ The following is the opinion of one of the most talented officials of the Treasury in regard to purchases:—

"The passage relied upon to justify the purchase of horses, carriages, books, instru-

new services, there were many causes of difference between the disbursing and accounting officers. The superintendent's compensation became early a subject of discussion. It had originally been fixed at $3,000 per annum of salary, and $1,500 for personal expenses, including subsistence, travelling, and postage.* An additional allowance of $1,500 was made with great reluctance, when the superintendent became charged with the construction of the new standards. Another matter producing difficulty, was the necessity of procuring new instruments, for which specific authority was necessary from the department. The instruments of the collection of 1815, which had survived the intermission of seventeen years, from that time to the recommencement of the Survey in 1832, were found insufficient when the work extended itself, and others were required. Explanations were asked and made, and sometimes not understood; and so strict were the rules adopted, that an almanac or a thermometer could scarce be purchased without an authorization.

The first vessel used for the sounding parties, instead of being furnished by the Treasury Department, was charged, with all its equipments, to the appropriation for the Survey, and that too at a time when that appropriation for the year amounted only to $20,000, presenting a singular contrast with the conduct of the same department now, where vessels and equipages, constructed and hired for another branch of the public service, amounting to at least $240,000, have been transferred to the use of the Coast Survey without even a passing remark. Under the superintendence of Mr. Hassler the case was entirely different. The Department, the Superintendent, and the Legislature, seem to have been at continual variance, though the appropriation was not then half of what it is now, and at least as much work was done in every year as there has ever been done since. In 1842, so much discontent was manifested by the public at this continued bickering, that the House of Representatives appointed a committee to investigate the whole subject. This committee made a partial report through one of its members, accompanied with sundry recommendations, which was, however, never acted upon. In the succeeding year the appropriation was at first refused, and only granted upon condition that it should be expended in conformity with a plan to be submitted to the President by a board of officers who were designated for the purpose. This board met soon after, and reported a plan, which (except a few unimportant alterations, attended to only for the succeeding year) left the matter very much where it was.

It was evident that this lack of co-operation between the Department and the Superintendent, as well as the misunderstanding and opposition of Congress, did not proceed so much from any opinion that the work had been in any way mismanaged, as from the intrigues and ill offices of ex-

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ments, &c., is found in the letter of the Secretary of the Treasury, dated 3d August, 1816, and is in the words following, viz:—'You will be provided with competent assistants of officers and men from the corps of engineers and from the navy, with tents and field equipages, wagons and horses, &c.' This clause, it would seem evident, does not authorize the purchase of anything. Mr. Hassler is to be provided, he is not to purchase or provide himself."—*Letter of the 4th Auditor, Oct.*, 1834. Under the present regulation, the approval of the Superintendent of the Survey is all that is required to pass any account.

* The salary of the present superintendent is $7,500, vide official register. This was contradicted last winter, but an investigation, it is believed, will sustain the authority of the Blue Book.

pectants, who had been disappointed, or aspirants for whom there was not room. The continued turmoil and disturbance which had beset the superintendent from the commencement of his duties, acting upon a temperament naturally mercurial and sensitive, had gradually undermined his health; and in November, 1843, in consequence of exposure in the field, he died suddenly, in the seventy-third year of his age, leaving vacant a situation, which, when he first received it, he was perhaps the only man in the country fully competent to fill.

As might have been expected, on the occurrence of so important a vacancy, there were a large number of applicants for the succession.

The assistants in the Survey, some of whom had been thirty years in the public service, were overlooked and rated merely as clerks, a race of functionaries who have been held from time immemorial as disqualified for any further advancement, and are merely continued in office as marks of reference, and living *indicia* of the acts of the succession of chiefs under whom they have served. The successful candidate, or the one who produced the greatest amount of personal influence, was Professor Bache, the present superintendent, who had been for several years the president of the then inchoate Girard College, and at that time occupied the chair of Natural Philosophy and Chemistry in the University of Pennsylvania. Doctor Bache was then known as a clever lecturer, but out of Philadelphia, his scientific reputation depended mainly, if not altogether, upon his preface to Brewster's Optics, an avowed compilation from works on the same subject of more distinguished authors, and a Report on Education, made to the trustees of the Girard College, which was published by them with reluctance, and of which it may be said, that if the details were gathered with great expense and labor during a long visit to Europe, the maxims inferred might as well have been taken from the Parent's Assistant. But what might be deficient in reputation and skill, was more than made up by influence.

The new superintendent, immediately on assuming his position, made several important changes among the *personnel* of the Survey, the final result of which had then probably been calculated or foreseen only by himself. The regulation submitted by the board for reorganizing the Survey only a year before, which directed a monthly return of operations in the field, was dispensed with altogether, and in its stead a return was directed to be made to the superintendent, resembling very much the monthly returns from primary schools, the uses of which were not developed until some time after. Assistants, who had but a few months before been appointed by the department to perform certain duties, were assigned to employments with which they were less familiar. These changes, as the results manifested soon after, could have been made with no other intent than to excite discontent and dissatisfaction, and occasion some action or remark, which, being reported to the department as insubordinate, might give pretence for a removal, and make room for an adherent. We refrain from saying much on this subject, out of feelings of delicacy to those concerned, and trusting that an investigation may be had before long, which will give the public some insight into this part of the subject.

Soon after this, a permission given by the department to have calculations made by persons not belonging to the Survey, and engaged in other employments, which permission was not spoken of till the year afterwards, allowed the superintendent to increase to almost any extent his official

patronage, without making any exhibit either of the names or functions of the auxiliaries.* But a regulation of still greater importance, and which cleared the way at once for disbursements of any description, is described page 44 of the Report of 1845:—"The disbursements of each party are made by the chief, and the accounts then pass into the hands of a general disbursing agent, by whom they are first audited under the regulations of the Treasury Department. They then undergo an administrative examination by the superintendent, and if they have passed these two audits, are forwarded by the general disbursing agent to the First Auditor of the Treasury." This regulation made the Coast Survey at once a bureau of the Treasury Department, the method of audit being precisely the same as that of any other bureau. While under the former superintendent, even the smallest purchases were objected to, unless made by permission of the department; this effectually removed every obstruction, and relieved the auditor entirely from the discussion of a very complicated budget of accounts. The lodgment thus made was speedily fortified, and in the official register next issued, the Superintendent of the Coast Survey figures above all the auditors, as the officer of third rank in the department;† giving thus a very incontrovertible evidence that the Coast Survey has now no fear of opposition, and is destined to become a permanent establishment. Indeed, its parties, without any authority but that of the department, and leaving seven-eighths of the older settled and more dangerous coasts untouched, have already been sent to the countries only acquired or conquered during the last year, and are triangulating in Mexico and California—"*On ne arrete pas dans un si beau chemin.*"‡ Congress may debate upon the propriety of legislating for their new territories, or providing them with governments, but to the operations of the Coast Survey there is neither obstacle nor end.

In taking the field in 1844, the superintendent assumed the northern portion of the Survey, which had been carried to Point Judith by his predecessor, under the immediate charge of one of the principal assistants. The accuracy of the work thus far had been verified by the last line of the triangulation, agreeing, within a very small limit, (a fraction of a foot,) with the same line of Mr. Borden's triangulation, made for the survey of Massachusetts, and depending on another base.§ In taking this part of the field, instead of leaving it to the assistant, who had so honorably and judiciously managed the preceding and more difficult part of the operation, the superintendent not only secured himself an easy and healthy country to operate in, but he had before him the points already established by Mr. Borden, each marked with a monument. He had also Mr. Bor-

* An example of the extreme rapidity with which computation is done under the present superintendence, it may be stated that the recomputation of the base of 1844, first computed by the assistants in the field, while the work was doing, have only been recomputed in 1847.—*Page* 48, *Report of* 1847.

† It may be said of this as of the superintendent's salary, that it is a mistake of the Blue Book. That book never errs on that side.

‡ The coast of California is now more accurately surveyed than any of our own coast, except what has been covered by the Coast Survey, about one-eighth of the whole, counting from Passamaquoddy to the mouth of the Rio Grande.

§ This close agreement of Mr. Blunt's with Mr. Borden's work is nowhere spoken of in the Coast Survey reports; nor is there a single atom of credit given to Mr. Borden, though it is said that he was one of the applicants for the superintendence, and withdrew his claim in Dr. Bache's favor.

den's results to compare always with such as he might derive himself; and moreover, he had with him one of Mr. Borden's assistants, who knew the country, and thus spared him any trouble of reconnaissance. Indeed, it is known that an attempt made by this assistant to change a principal line of Borden's triangulation, though made at great expense and loss of time, altogether failed; thus showing clearly the ability with which the points of the previous triangulation had been selected. The superintendent, in the four years of his personal field-work, has scarce yet passed the limit in which Mr. Borden had preceded him; and if it be ever judicious in such matters to raise questions of economy, it might be well worth asking whether the work done in the field by the present superintendent, at immense expense, has been necessary at all.* To the assistants were assigned the more southern portions of the work, and two bases of verification, near the extremities of the triangulation which had been furnished by Mr. Hassler, were measured by them in 1844.

Upon the appearance of the annual report of the superintendent in 1844, the system of management which was to be adopted began to developе itself, and the purport of the *new* regulations became intelligible. The most important regulation made by the board of 1843, and the only one which materially changed the pre-existing usage in the Survey, was that which directed monthly reports from the assistants, of the strength of their parties, and the progress of their work.† These reports were recommended by the board, for the purpose of avoiding any loss of results from casualty. It was a precaution which had been used in the topographical bureau since 1825, and was recommended by the second officer of that corps, who was a member of the board of reorganization in 1843, simply on the ground that it prevented any chance of loss, and gave to the superintending bureau at once the details of the work executed in the field. Such had been the practice under the reorganization in 1843. The chiefs of parties sent their results to the department to avoid loss by accident, and a statement of the strength of their parties as a criterion by which the disbursements for the season might be regulated, and the parties extended or withdrawn, in proportion to the funds. Under the new system, these reports were changed, both in their direction and character. They were to exhibit a meteorological journal of the weather, and an account of the employment of each day; and instead of going to the department, according to the regulation, they were sent to the superintendent. From these data he was to collate, at the end of each year's work in the field, the number of angles measured, of square miles reconnoitred, or surveyed or sounded by each party; and to determine, by arithmetical computation, the industry or skill which had been used by each assistant in the discharge of his duty.

It will be at once evident that such an estimate of service is scarcely applicable in a primary school, where the studies prescribed are the same,

* At the stations of the main triangulation, under the present superintendence, there are usually thirty tents, with the corresponding equipage.

† "The chiefs of parties, whether engaged upon the land or hydrographic operations, shall make, on the first day of every month, reports showing the strength of their respective parties, and the progress in the work during the preceding month."—(*Plan for the reorganization of the Coast Survey, Art. XII.*)

"The reports required by the 12th article of the plan of the board, to be made by the chiefs of parties on the first day of every month, will be made directly to the Treasury Department."—(*Arrangements and Directions, Art. VII.*)

and the differences to be determined are the quantities either of talent or of diligence which have been applied in their acquirement. But in a work like the Survey of the Coast, prosecuted in various localities, a simple reconnaissance, requiring in one place more skill and time and labor than a triangulation in another. The qualities of the atmosphere, in some places reasonably transparent, and in others almost constantly impervious by fog and vapor, aiding or retarding the exertions of the most skilful operator, and the means both of subsistence and of transportation varying in a still more unequal proportion, it were the height either of folly or imposture to presume that equal means and equal appliances would produce equal results. Yet such was the standard assumed by the superintendent as an estimate of the quantity of work done by each of the parties, and of the relative merits of the chiefs who had directed their operations. In his reports to the department, the number of observations made, the number of square miles covered, either by reconnaissance, triangulation, topography, or sounding, are all that are presented for consideration, no regard being had either to health, climate, or the character of the season.*

This use of mere quantity is a favorite arithmetical process, used chiefly by retired school-masters. It is an exhibition to advantage of the cumulative power of numbers, and delights in solving such problems as to determine the length, in inches, of cotton thread, which would encircle the globe, or how many loaves of bread a man must eat in seventy years; but is too gross and unmeaning to be applied in any case, even of common importance. It was not, however, used unwittingly by the Superintendent of the Coast Survey. He seems to have had a full sense of its value, and of the purposes which it might be made to subserve. Under this estimation of character, when an assistant became obnoxious, it was merely necessary to send him to a bad atmosphere, with an indifferent or defective apparatus, and the monthly report would be taken as evidence against him, furnished by himself.† This plan of operation was made fatal to one of the assistants, in 1846, and severely affected another in the succeeding year.

But if this application of the numerical theory to the work of the assistants has been productive of important results both to them and to the superintendent, there is another application of the same kind, which is of as much importance to the public. In the first report of the superintendent, it was stated that operations in the past year had been carried on in nine different States, and that they would be extended in the year then current, to three or four others.—(*Page* 3 *of the Report of* 1844.) They have been further extended in each successive year, till now they

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* The value attached to this numerical estimate will be sufficiently evident by the following extract from the Coast Survey article in the American Almanac for 1849, page 71:— "*The amount of results now obtained is double that under the former plan, for an increase of* 50 *per cent in the cost.*"

† This assistant presented journals containing 15,800 readings of an instrument, among which were detected twenty-six misreadings, of one minute. He presented, from these premises, 1,900 results, of which he had rejected thirty-seven. The number of misreadings of one minute (an error usual in such observations) would, in ordinary cases, have been noted only for its paucity. Nevertheless, these defects were quite sufficient to answer the purpose of the superintendent. The assistant was unceremoniously removed, after a long term, (near thirty years of public service,) and at a time of life when this deprivation involved almost certain ruin.

embrace eighteen States; and we are informed, in the paper on the Coast Survey in the American Almanac, that this coming year the whole of the Atlantic coast will be occupied by detached parties of the Survey of the Coast.—(*Vide American Almanac, p.* 77.)

And we learn, from another unprinted authority, that similar parties have been already sent to Mexico and California. This imposing array of States, exhibited as new centres of operation, is as false a use of figures as can anywhere be found. It is intended to mislead the public as to the quantity of work actually done, by enumerating a long list of places, in which a sextant may have been uncovered, or a lead thrown; and its only tendency upon the interest of the Survey has been to increase the official patronage of the superintendent on the one hand, and distract and render it unproductive on the other. To strip the statements of the superintendent of their fallacy, it is only necessary to state, that in six of the nine States enumerated in the first report of the superintendent, the Survey might be considered as completed, before his superintendence began; while the work done in the nine additional States, during the five years which he has been in the office, may be stated as follows:—

In Massachusetts, the triangulation of Mr. Borden has been repeated, this being almost the only field-work in which the superintendent has been engaged. Of this we have already spoken as an operation, the necessity of which might well be questioned at any time; but when seven-eighths of the more dangerous coast is yet unsurveyed, and the only reason for undertaking this portion of the Survey at present seems to be the personal convenience of the superintendent, it assumes a much more exceptionable character. In addition, the Survey of the Chesapeake has been continued southward to below the mouth of the Potomac. The Albemarle and Croatan Sounds have been triangulated, (without a base,) and the topography partially finished. The Mississippi Sound, from Pascagoula to Mobile, has been partially surveyed, and a triangulation and sounding has been commenced in Mobile Bay. Of the reconnaissances made in South Carolina and Texas, little need be said, as they were undertaken merely *ad captandum;* and the expense of the operations, as nearly as can be judged from the report of the superintendent, has only been about $7,000.

If the five years' work of the present superintendent, with a *personnel* at least twice as large as the largest ever employed under the previous superintendence—an appropriation more than eight times greater than that with which the work began, and nearly twice as large as that with which the former superintendence closed—and with vessels and equipages furnished by the Revenue Bureau of the Treasury Department to the amount of $240,000—be compared with the eleven years' work done by his predecessor, it will be seen, even using the superintendent arithmetical process, that there is but little difference in the proportional quantities of work done. I exclude from this all comparison of the area of the primary triangulation. The reoccupation of Borden's triangulation put the superintendent at once in the possession of triangles, with sides of from eighteen to seventy miles in length; and superficial square miles by the thousand were covered with more ease than hundreds in any other portion of the Survey.

In the meantime, the outer and more dangerous coast, from Cape Henlopen to Cape Charles, (upon which, a short time since, a vessel of war

was nearly wrecked,) has not been touched. The still more dangerous coast about Cape Hatteras, for the accurate survey of which the work in North Carolina was first commenced, has been altogether neglected.* And while a reconnaissance of the coast of Texas figures largely in the annual report of the superintendent, the geographical position of Galveston Bay is known to be uncertain, to an extent alike shameful and dangerous.

But to arrive more conclusively at the relative expenses and work done under the two superintendences, and also circumscribe somewhat the extent of the paper, which has already exceeded the limits which were designed for it, we may refer to the following statistics, which are based either upon documents, or information acquired directly from authentic sources. And in making any comparison, it must be recollected that the term of Mr. Hassler's superintendence should be reckoned only at eleven years, excluding altogether the year 1817, the operation of that year having tended actually to retard, and not to advance the work; while that of Dr. Bache's (up to the term of his last report) may be reckoned at about four years. The expenses of the two terms must be divided into the actual annual appropriations authorized by law, and the amounts furnished to each from other sources.

The actual appropriations for Mr. Hassler, exclusive of that for 1817, amounted to $857,549. The appropriations for each individual year have already been enumerated.

The appropriations of the same kind, for the four years of Dr. Bache's superintendence, amount to $449,000.†

The appropriations derived from other sources must be inferred from the number of vessels furnished by the Revenue Bureau of the Treasury Department, and from the number of officers and men detailed from the naval service. In 1843 the vessels employed in the Hydrography of the Survey were as follows:—

Brig Washington. | Cutter Nautilus. | Schooner Vanderbilt. | Schooner Jersey.

To these were attached eighteen naval officers, and about eighty men. The two first-named vessels were (it is believed) furnished by the Navy and Treasury Departments, and may be valued at $27,000. This branch of the Survey having grown gradually from 1834, when it commenced with the schooner Jersey, till it reached the above establishment, the amount of pay and subsistence cannot now be accurately ascertained, but may be set down at $260,000.

Under Dr. Bache's superintendence, the following vessels have been employed, with about thirty-two officers, and one hundred and fifty men:—

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* The expenses already incurred in the Survey of the interior sounds of North Carolina may be estimated at about $80,000. If this sum had been expended in erecting light-houses, in lieu of the light-boats now used in the sounds, the commercial interest would have been benefitted to a much greater extent than by the survey of the shoal waters of the interior. The light-house system throughout the country is well known to be very imperfect; but in North Carolina it seems to have been neglected altogether.

† The amount of appropriations from 1843 to 1848 are as follows:—1844, $80,000; 1845, $112,000; 1846, 111,000; 1847, 146,000; total, four years, $449,000; 1848, 165,000.

Brig Washington.	Steamer H. S. Legare.	Schooner George Bancroft.
Cutter Nautilus.	" G. M. Bibb.	" John Y. Mason.
" Phœnix.	" Thomas Jefferson.	" G. M. Bache.
Steamer James K. Polk.	" G. M. Dallas.	" F. R. Hassler.
" R. J. Walker.	Schooner Wave.	

Two other schooners, (names unknown,) making a fleet of 16 sail.

Of these vessels, the steamers, the cutter Phœnix, and the schooner Wave have been furnished by the government, and their value may be set down at $240,000.

The pay of officers and men, estimated as closely as practicable, for the whole term of four years, will amount to $204,000.

The number of civil assistants of all classes, in the last year of Mr. Hassler's superintendence, was twenty-seven, of which three were engravers, and seven artificers and heliotropers.* Under the present head of the Survey, as nearly as can be ascertained, the number is sixty-one, exclusive of those employed temporarily. In arriving at this number, it has been necessary to go farther than the official Register, or Blue Book. But the authority is, nevertheless, authentic, and printed. In examining critically the reports of the superintendent, particularly that for 1847, names enough will appear to make up the number, though excluded from the printed list of the corps.

In comparing the work executed under each superintendent, we have but short data on the part of Mr. Hassler. The method so advantageously pursued by his successor, of superficial miles and numbers of observations, made no part of his system. There is, in answer to a question proposed by the Committee of Investigation in 1842, an estimate given of the square miles of primary triangulation from New Haven to Philadelphia, (*Doc. 43 of the H. R.*) which states it at 3,577. An examination of the maps and sketches, which are either part of his official communications, or can be otherwise obtained, will show that a superficies of about 5,760 miles had been covered with primary triangulation during his superintendence.

The superficial miles of primary triangulation made by the present superintendent up to 1847, will, by his estimates, amount to 7,803 ; of which 6,532 are in the northern triangulation, the principal part of which had been previously executed by Mr. Borden, affording, without any trouble of reconnaissance, sides of from twenty to seventy miles in length, where a single triangle covers more surface than will be found in any other part of the Survey in the work of years. This sort of comparison, instituted with great foresight by the present superintendent, is so manifestly absurd, as to require no other exposition of its fallacy than simply to compare the quantities of the northern and southern portions of his own work. The one is 6,532, and the other 1,271.

If, instead of this method of estimating, we compare either the length of the shore-lines of each work, or the surfaces covered by the secondary triangulation, we shall arrive at a safer judgment of the mere matter of quantity, though even then, such an estimate, made without regard to the nature of the country and other circumstances, is entirely useless and uncertain. A large map of the United States is the only document necessary to be referred to.

* Heliotropers are persons used in managing an instrument called a heliotrope, for signals at distant points.

From this it will appear that Mr. Hassler's secondary triangulation, covering the outer coast and shores of Long Island Sound, and extending southward to Cape Henlopen, has an area of 8,100 square miles. During Dr. Bache's superintendence, according to his own estimate, the secondary triangulation amounts to 2,723 square miles.

If, leaving these technical and inapplicable methods, we examine merely the respective lengths of *outer* sea-coast which has been surveyed, it will be seen that, under the first superintendence, there is a length of two hundred and sixty miles, comprehending the dangerous and difficult coast of New Jersey; while that of the present superintendent, extending principally from Buzzard's Bay round Cape Cod, shows only a length of about eighty miles, and that, too, on a part of the coast previously better known than any other of its whole extent. It was wont to be the opinion that bold and rugged coasts were usually the safest, as affording capes and headlands for land-marks, or sites for beacons, warning the mariner of danger, or indicating the approaches to his desired harbor. But at present we are apprehensive, if the "north countrie" continue to excel in the coming years as it has in the past, in luxuries both of learning and living—tourists and tautog—savans and salmon—should its summers be as bracing and its winters as festive as heretofore, there will be no end to the discovery of shoals about its rock-bound but blessed shores; and they will long be considered, by both mariners and hydrographers, as infinitely more dangerous than the sunken and sandy beaches of the South, where the ship strikes before the land has been discovered; and which are, for the greatest part of the year, literally strewed with wrecks.

If these data be correct, (and those referring to expense must be very nearly so,) the following summary will show the relation between the economy of the two superintendencies:—

	Mr. Hassler.	Dr. Bache.
Direct appropriations	$857,549	$449,000
Constructive appropriations, vessels	27,000	240,000
" " pay	260,000	204,000
Total	$1,144,549	*$893,000
Average expense of 1 year	104,050	223,250
Vessels	4	16
Civil assistants	27	61
Naval officers†	18	33
Total	45	94
QUANTITY OF WORK.		
Primary triangulation.....in square miles.	5,760	7,803
Secondary triangulation	8,100	2,723
Line of sea-coast.....miles	260	80

According to this, the average annual expense of the first superintendence would be less than half that of the other, and the actual amount of work done, estimated by a plain and strictly just rule, would be in favor of Mr. Hassler in about the proportion of six to five; while the increased

* The expense of Dr. Bache's superintendence up to the end of this year will be about $1,112,000.

† Officers of the Army have also been, and are now, employed in the Survey. Their number and terms of service has recently been so uncertain that no reference has been made to them.

number of assistants has more than doubled the official patronage of the superintendent.

Thus much for the field-work of the Survey. It remains that we take some notice of the publication of maps and charts, which are the exponents of its value to the country.

At the time of Mr. Hassler's death, four sheets of the large chart of the Bay and Harbor of New York were engraved, and ready for publication. A reduced chart of the same was also considerably advanced; and the work in the Delaware, of which the survey and soundings had been almost completed, had been reduced, and was ready for the copper. Up to the present time, the following charts have been published:—

6 sheets of New York Bay and Harbor.		1 sheet of Harbor of Edgartown.	
3 sheets of Delaware Bay.		" "	Oyster Bay.
1 sheet of Harbor of	New London.	" "	South of Cat Island.
" "	New Bedford.	" "	Annapolis.
" "	New Haven.	" "	Little Egg.
" "	Bridgeport.	"	New South Shoal.
" "	Black Rock.	"	Fisher's Island Sound.
" "	Holmes' Hole.	"	Horn Island Channel.
" "	Tarpaulin Cove.	"	Entrance of Mobile Bay.

All these, with the exception of New South Shoal, Horn Island Channel, Harbor South of Cat Island, Tarpaulin Cove, Holmes' Hole, and the entrance of Mobile Bay, are grounded upon surveys of the first superintendence. The charts of New York Harbor, of Delaware Bay, and the southern shore of Long Island, are the most important of the series, and exhibit the greatest amount both of topography and sounding. The chart of Long Island is still incomplete; and the sheets of the Delaware were much delayed, for a reason which it will be necessary to mention.

Some time between the years 1836 and 1840, the War Department directed an examination to be made of the defences at the entrances of the principal harbors. The officer who made this examination (Major Hartman Bache) discovered differences, which were deemed to be essential, in the topography delineated on the maps of the Coast Survey, and the shores as actually found at that time. The most important of these differences were understood to have been found at Sandy Hook, at the Narrows of New York Harbor, and some other points of Long Island, which came under the view of the examining officer. It will be noticed that the low sandy beaches which characterize the whole line of coast south of Rhode Island, are but half formed, and subject to constant, and, in some cases, to periodical changes. The shores about Sandy Hook, particularly, having been more the subject of observation than any other, undergo changes which can now be predicted with tolerable certainty. Charts of such shores should contain, as a necessary piece of information, the dates of the surveys upon which they are founded. The differences at Sandy Hook were deemed of so much importance, that the engraved sheets were corrected, and communications made public, indicating that the former survey was erroneous, and of course laudatory of the accuracy and acumen of the present superintendent. The discovery of these differences induced an examination of other portions of the Survey, when other differences were discovered. Resurveys were directed, as is understood, over very extensive portions of Long Island Sound and the Delaware, and the charts which had been partially engraved were altered, in conformity with the new surveys. This, it is understood, has delayed the execution

and publication, both of the charts of Long Island Sound and the Bay of the Delaware.

These resurveys over work which had already been done have been very extensive, and very slight differences have been made subject to examination and revision. On this we would remark, that in surveying with a Plane table, (the instrument used for the topography of the Coast Survey,) no two operators would produce precisely the same configuration of the shore or representation of the topography; and the differences between the two maps thus produced would be greater in proportion to the irregularities of the shore and surface. It cannot be expected that the topography of the whole coast should be executed with the accuracy required as preliminary in military and civil constructions. Important differences should of course be corrected; but to examine every slight variation is to do what is both unnecessary and useless, because the second result, though different, might be as inaccurate as the first; and the only process by which satisfactory surveys could be procured, with the plane table, would be to have each portion of the coast gone over by three different persons. If superintendents of the Coast Survey are to succeed each other frequently, and each is to consider it a principal and primary part of his duty to review the works of his predecessor, we apprehend that the survey would always be confined within the same limits, and that those limits would be found where the country is most thickly settled, and the climate most genial.

But another matter, also expletive of the *morale* of the Survey of the Coast, is entitled to more decided notice. The sheets of the Delaware and Long Island were found erroneous, not only in the representations of the original field-maps, but in their first reduction to the paper—the reduction having been made principally by an assistant, then occupying the fifth place in the Survey. To such an extent were the reductions found erroneous, that going over the work and planishing out the portions of it which had been already engraved, has more than doubled the expense of the charts, and delayed for about two years their publication. Yet, while other assistants have been removed or displaced for trifling or pretended causes, this assistant has been unceremoniously promoted over three of his seniors in service and superiors in talent, and now occupies the second place in the Survey.

We had intended here to take a brief notice also of the establishment for the construction of weights and measures, in the same points of view as we have examined the Coast Survey, that is, regarding the economy of its execution, but find that this is a subject which cannot be touched now. The disbursements have all been made under the authority of a joint resolution, without either specific appropriation or prescribed method of account.

We will close this notice of the Coast Survey, which has much exceeded the limit originally intended for it, with the expression of a hope that Congress may, before long, institute a close investigation into the management of this important work. We are aware that its proper execution is important, as well to the interest of science as to those of commerce, and that it opens a wide field for the development and exercise of talent. We should wish to see this field fully occupied, affording space and opportunity for early exertion, and support and remuneration for long continued service. These, apart from the main design, are proper objects

to be kept in view; and thus managed, it would deserve and receive the patronage and support of the country. The case, however, will be different, when these aims are forgotten; when, for want of the proper visitation and supervision on the part of the general government, a great public work is monopolized by a particular clique or faction, is used for mercenary or political purposes, for the indulgence of private pique, or the aggrandizement of personal and family influence. * J.

Art. II.—LAWS OF GEORGIA WITH RESPECT TO COMMERCIAL TRANSACTIONS.

A SYNOPSIS.*

OF THE SYSTEM OF LAWS OF FORCE IN THIS STATE, AND OF THEIR ORIGIN.

The laws of force in the State of Georgia consist of the Common and Statutory Laws. The Common Law of England, and some of the more important statutes of that country, form the foundation of the legal code of this State. The Common Law of England, and all acts, clauses, and parts of acts in force, and binding on the inhabitants of Georgia, as a province, on the 14th May, 1776, not inconsistent with the Constitution, laws, and present form of government of the State, were declared of force, at an early period in the history of the State. Many provisions of the common law, and of the statutes of England as then existing, have been modified and repealed; but some of the more important are yet in full effect, and consequently the expositions of the English courts are recognized here. Magna Charta, the petition of rights and bill o rights, and the charter of the province of Georgia, prompted by George II. in his fifth year, 1732, are material parts of the system; and among the more important statutes existing in an original state, or nearly so, may be named the Habeas Corpus act of 31 Charles II., the 27 and 13 Elizabeth, with respect to Fraudulent Conveyances; the 6 Edward I., regarding Dower; the 9 and 10 William III., upon the subject of Protests of Bills of Exchange; the 3 and 4 Ann, upon the subject of Bills of Exchange and Notes; the 29 Charles II., respecting Leases and Rents; the 21 Henry VIII., upon the same subject; the 4 George II., upon the Rights of Landlords and Lessees; the 32 Henry VIII.; the 34 and 35 Henry VIII.; the 29 Charles II.; the 20 Henry III.; the 25 George II.; the 4 Ann; the 3 William and Mary, upon Wills; the 25 Edward III.; the 13 Edward I.; the 4 Edward III.; the 6 Edward I.; the 8 and 9 William III.; the 4 Ann, upon Parties and Limitations of Actions.

OF THE PUBLICATIONS IN WHICH THE LAWS OF GEORGIA ARE FOUND.

The compilation of English statutes of force in this State, directed to be prepared, under the authority of the Legislature, by William Schley,

* For the present synopsis of the laws of Georgia, and for similar articles in relation to several of the Southern States with respect to commercial transactions, we are indebted to the Hon. Benjamin F. Porter, of the Tuscaloosa (Alabama) Bar, a gentleman of eminent legal attainments and great moral worth. Judge Porter's practice of the law is not confined to Alabama, but extends to Georgia, and a wide region in the vicinity of those States.—*Editor of the Mer. Mag.*

Esq., in 1823; Prince's Digest of Statute Law; Hotchkiss' Digest, prepared in 1845, and the several volumes of Supreme Court Reports, by Kelly, consisting now of three volumes, are the most important. Hotchkiss' work is very valuable, not only from its very recent publication, but from the faithfulness with which it has been compiled, and the superior arrangement pursued. Of Kelley's Reports it must in justice be said, that in the ability of the decisions reported, in the excellent manner of reporting, and in typographical execution, they are equal to the best of any of the American Reports. In addition to these, Howell Cobb, Esq., has published a most valuable book of forms, of great usefulness to the practicing counsellor, and the various judicial and ministerial officers of the State.

OF THE SEVERAL COURTS OF GEORGIA.

The courts of this State are a Supreme or Appellate Court, Superior Courts of general jurisdiction, Inferior Courts of general jurisdiction, and certain courts of special jurisdiction, embracing Corporation Courts, Justices Courts, Courts of Equity, and Courts of Ordinary.

The Supreme Court of Georgia was organized in 1845, and consists of three judges. It is a court of correction of errors, and has no original jurisdiction whatever.

The Superior Court has a general original jurisdiction, exclusive in all criminal cases, except in some few cases confined to inferior and special jurisdictions, in all cases involving title to lands, and a concurrent jurisdiction, in all other civil cases, with the Inferior Courts. It has also power, by certiorari and new trials, over the Inferior Courts, and appellate jurisdiction in other cases provided by law.

The Inferior Court has a concurrent jurisdiction in civil cases, with some exceptions, with the Superior Court.

OF THE COMMENCEMENT OF ACTIONS OR SUITS IN THE SUPERIOR AND INFERIOR COURTS.

1. All suits of a civil nature are begun by petition, setting forth the plaintiff's claim. To this the clerk of the court annexes a process, requiring the defendant to appear at the court to which the process is returnable, and is to be served on defendant seventeen days before the return day. A copy of the petition and process is to be served on the defendant, or left at his place of residence.

2. *Of Bail.* Should bail be required, the plaintiff shall be required to make oath before any judge, justice of the Inferior Court, justice of the peace of the State of Georgia, or judge or justice of a Superior Court of any one of the United States, to which is to be annexed the seal of the particular State, and a certificate of the governor, certifying that the person taking the affidavit is such judge or justice,—1. Of the amount of the debt claimed. 2. That he has reason to apprehend the loss of said amount, or part of it. The bail may be required on these conditions when the process is first sued out, or during its progress.

3. *Of Attachment.* Suits may also be commenced by attachment in the case of non-residence, or where both debtor and creditor are beyond the State; or when the debtor is removing without the State, or any county of it, or absconds or conceals himself, or stands in defiance of a peace officer, so that the ordinary process of law cannot be served. These

facts, or one of them, must be shown to exist by oath, and a bond and surety be given. On attachments are grafted the ordinary garnishment process, answering to the Trustee process of Massachusetts.

The bond required to be given by the plaintiff in attachment, is to be in a penalty double the amount sworn to be due, to which there must be surety. The condition is, to pay all costs and all damages which may be incurred "for suing out the same."

Attachments are authorized when the debt is due in future, and on suits pending. Property attached is privileged to be replevined. Liens are created in favor of those first levied.

ACTIONS UPON BONDS, ETC.

The 8 and 9 William III. are of force, giving full costs in actions of trespass, and authorizing the assignment of any number of breaches in actions on bonds, covenants, or agreements.

LIMITATION OF ACTIONS.

Ejectment, seven years; actions on the case, other than slander, actions of account, actions of trespass, debt, detinue and replevin, for goods and cattle, of trespass, *qua. claus. fr.*, four years; trespass, assault, battery, and wounding and imprisonment, two years; case for words, six months; actions on bonds or other sealed instruments, twenty years; upon notes or other acknowledgments under the hand of the party, six years; upon open accounts, within four years; upon penalty, fine, or forfeiture, six months.

PARTIES TO, AND COMMENCEMENT OF, ACTIONS.

Co-obligors upon any bond, note, or writing, who reside in several counties, may be sued in either; and joint contractors or copartners may be sued in the same action, and upon service upon either, the plaintiff may proceed to judgment, as to the party served; and judgment thus obtained authorizes execution against the joint, or partnership, or individual estate.

Representatives of deceased persons may be sued in the same action with the survivor, on notes or writings, signed or sealed by two or more. Representatives, however, are privileged to exemption from suit for twelve months, after the grant of letters, or probate of wills.

Suits do not abate on the death of a party, but are revived by *scire facias*. In the case of the death of a plaintiff, his representative has a *scire facias* served on the defendant within three months after grant of letters or probate of will; and in the case of the death of a defendant, a *scire facias* issues to his representative after the expiration of twelve months. On the death of one of several jointly interested, the suit may proceed against the survivor, the death being suggested upon the record.

The petition being taken out and process served, the defendant is required to appear at the return term, and on or before the last day thereof file his defence, in writing, plainly set forth, and signed by the party or his attorney. The denial of deeds, bonds, bills single, penal notes, drafts, receipts, or orders, must be accompanied by affidavit. Indorsements are admissible in evidence, without proof of handwriting. Copartnerships of plaintiffs are not required to be proved, unless put in issue by pleas in abatement.

Mutual debts and sets-off are allowed, provided the defendant files, with his answer to a suit, a copy of the subject matter of the set-off. These

sets-off cover the cases of open accounts for dealings between the parties to the suit, and of any bond, note, bill, or other writing for money, or other thing, held and possessed by the defendant in his own right.

Partial failure of consideration may be plead upon a contract in such cases, and between such parties as between whom and which total failure of consideration would be pleadable.

PLEAS OF USURY.

If these are filed, the plaintiff, within one month after the filing of it, and upon a copy served and notice, is required to discover on oath whether the facts of the plea are true. If the plaintiff fails to make the discovery, the defendant's affidavit may be made. These may be read as evidence on the trial by either party.

OF EVIDENCE.

When witnesses reside out of the State, or out of the county when his testimony is required, either party (in civil cases) on ten days' notice, and a copy of the interrogatories, may sue out a commission to examine such witnesses. Witnesses thus situated may be compelled to appear and answer. So witnesses going beyond seas, removing out of the county, or beyond the jurisdiction of the State, or whose official or other business require their absence from the county, or from age or bodily infirmity unable to attend court, and females, may be examined as above. The same provisions have been also extended to persons residing out of the State, or county, or seamen, patroon of a boat, stage driver, mail carrier, and to all other persons whose testimony cannot be duly obtained.

Certificates, protests, and other acts of notaries public in relation to the non-acceptance of any bill of exchange, draft, or other order, made for the payment of money, or other thing, and also in relation to the non-payment of any bill of exchange, draft, order, bond or note, for the payment of money, or other thing, are presumptive evidence of the facts, without other or further proof.

The statute of 11 Henry VII., entitling indigent persons to sue without liability for costs and fee, is of force in this State.

OF SPECIAL LIENS.

These are given to masons and carpenters for all debts due for work done, or materials furnished for building or repairing any house, where personal security is not taken; and they create an incumbrance upon the house and premises, superior to any other claim, irrespective of its nature or date.

OF THE EQUITY JURISDICTION OF THE STATE OF GEORGIA.

The Superior Courts exercise the powers of a Court of Equity, in all cases where a common law remedy is not adequate, in cases between co-partners and co-executors, to compel distribution of intestates' estates, and payment of legacies, and for the discovery of fraudulent transactions, for the benefit of creditors. In case either party is dissatisfied with the verdict of a jury, in any equity case, he has the right of appeal to a special jury, selected by alternate challenges, or strikings from the Grand Jury.

The general rules of chancery pleading and practice, and the leading

principles of that jurisdiction, seem, with few alterations, to govern the equity courts here.

It may seem strange, to those who have learned equity from the luminous interpretations of the Pretors, of Lords Hardwick, Eldon, and Macclesfield, to witness the trial of chancery suits, by twelve chancellors, drawn from the country; but however anomalous this proceeding, it is not half so intolerable as equity administered by chancellors, drawn up, like forced shoots from an asparagus bed long before their season, from the hot bed of political preparation. When to devoted partizans, accustomed to nothing but an obstinate pursuit of party names, and the malignant exercise of dominant power, is committed the authority which is rarely safe but in the wisdom of age, and the most self-denying and impartial mind.

It may, however, be said, that so far as the writer has had an opportunity of observing, the exercises of the chancery jurisdiction, as well as that of the common law in Georgia, is kept perfect by the judges of the superior courts, who, for these times of political excitement, seem, far more than is usual, selected for their legal ability and personal integrity, irrespective of party influences.

OF CONTRACTS REQUIRED TO BE IN WRITING.

The 29 of Charles II., in original terms, is of force in Georgia. It recognizes no contract of the representative of an estate to bind his own estate; or of one person for the debt of another; or upon any agreement upon consideration of marriage; or for the sale of lands, or any interest in them; or upon agreements not to be performed within one year, as binding, unless the agreement be in writing. So no contract for the sale of goods, wares, and merchandise, for ten pounds sterling or upwards, without the receipt of part of them, or earnest, is valid, unless also in writing.

OF BILLS OF EXCHANGE, AND PROMISSORY NOTES.

All bills of exchange drawn in, or dated at and from any trading city or town, for the sum of five pounds or upwards, upon any person of or in any trading city or town, or other place, payable at a certain number of days, weeks, or months after date, after those days after due, may and shall be protested by a notary public; and in default of said notary, by any other substantial person of the city, town, &c., in the presence of two or more credible witnesses. (9 and 10 William III.) Such protest within fourteen days to be sent, or notice given thereof to the party from whom the bill is received. Protests also allowed for non-acceptance.

No acceptance of any inland bill is sufficient to charge any party to it, unless endorsed, or underwritten, thereon.

No protest necessary, either for non-acceptance or non-payment, unless the value be acknowledged and expressed in the bill, and be for the payment of twenty pounds and upwards.

The acceptance of a bill for a former debt shall be accounted payment of it, if due course for acceptance and payment be not taken. (3 and 4 Ann.)

The damages on domestic bills, or bills drawn or negotiated in Georgia, upon any person of any State, Territory, or District of the United States, is five per cent upon the principal sum. The same provision ap-

plies to all bills drawn in Georgia, and made payable at any place out of the United States, without reference to the residence of the drawer.

On bills drawn in this State, upon any place beyond the limits of the United States, the damages are ten per cent, besides interest, costs, and premium.

All notes in writing, signed by any person, body politic or corporate, or agent, banker, goldsmith, merchant, or trader; and also every such note payable to such person, or order, shall be assignable and endorsable in the same manner as inland bills; and the persons to whom assigned may maintain action in their own names. (3 and 4 Ann.)

All bonds and other specialties, and promissory notes, and other liquidated demand, whether for money or other thing, is negotiable by endorsement in the same manner with promissory notes.

A demand of makers of promissory notes, and notice to the endorsers, is not necessary to bind them.

Endorsers are placed on the same footing with sureties, and bound as such, and are suable in the same manner, and in the same action, with the principal or maker. Exception prevails as to notes in bank.

Endorsers and sureties may require the holder of any note, or other instrument, after maturity, to collect the same; and a failure to proceed operates as a discharge.

TIME AND INTEREST.

In computing time and interest, the day increasing in leap year shall be accounted one year, and be reckoned by calendar months.

In calculating interest, when payments shall be made, the payment is to be applied, first, to the discharge of interest due; and no part of the principal is to be considered paid, until all interest is extinguished.

All contracts, bonds, notes, and assurances for illegal interest is void, but the principal is recoverable.

OF THE EXECUTION OF POWERS OF ATTORNEY, AND OTHER WRITINGS IN OTHER STATES.

Bonds, specialties, and letters of attorney, and other powers in writing, are admissible in evidence, proved by one or more of the witnesses by affidavit, or affirmation in writing, before any governor, chief justice, mayor, or other justice of either of the United States, where they are executed, certified and transmitted under the common or public seal of such State, court, city, or place where proved. The affidavit must, however, express the addition of the party making it, and the place of his abode.

OF SALES OF LANDS BY POWERS OF ATTORNEY.

Sales of lands by letters of attorney expressly giving power of sale, if proved as mentioned in the last clause, or proved in Georgia before a justice of the peace, by one or more of the witnesses, is good and valid. Such powers and sales of lands under them are valid, till the attorney or agent has due notice of revocation or death.

OF THE EXECUTION OF DEEDS.

Consuls and vice-consuls of the United States, duly appointed and recognized, are authorized to receive acknowledgment in writing of citizens

of the United States, or other persons residing in the several consular districts, of deeds of conveyance, mortgages, powers of attorney, or other legal instruments, touching real estate, or other property, or rights or interest, lying in Georgia; and their certificates, under their official seals, are sufficient to authorize their admission as evidence. This power also extends any lawful contract or engagement to be executed in Georgia, or any act whatever lawful to be made.

OF RELINQUISHMENTS OF DOWER.

Alienations and conveyances made by husband and wife by joining in the deed, or by the wife's acknowledgment of consent to the sale, before justices or magistrates, are good in this State.

OF DEEDS OF LAND, AND THEIR REGISTRATION.

Deeds of lands to be by deed of bargain and sale, deeds of lease and re-lease, or by deed of feoffment; to be under hand and seal, in the presence of two or more witnesses, and proved and acknowledged before a justice of the peace, chief justice, or one of the assistant justices, and to be registered by the clerk of the inferior court of the county in which the lands lie, within twelve months from the date of the deed.

SEALS—HOW CONSTITUTED.

Seals are constituted by scrolls or other representation of a seal, when it is expressed in the body or conclusion of a writing that it is the intention to execute a sealed instrument. But this intention is sufficient without a scroll.

ESTATES—THEIR CREATION.

All gifts, grants, bequests, devises and conveyances of every kind, of real or personal estate, capable of passing an estate in entail in realty, by statute, (West. 2.) vests in the party an unconditional and absolute fee simple.

All gifts, grants, feoffments, bequests, devises and conveyances of real or personal estate, vests in the grantee an absolute fee simple estate, unless a less estate be expressed.

OF TRUST ESTATES.

All creations and assignments of trusts in lands, tenements, or hereditaments, shall be manifested and proved by writing signed by the party, or by last will. Such trusts are, however, authorized to be taken by implication from conveyances.

OF MORTGAGES.

Mortgages of lands and personal estate are to be registered in the office of the clerk of the Superior Court, within three months from the date of the deed.

Mortgages of personal estate, executed when the property is beyond the limits of the State, and afterwards brought into it, must be recorded within six months after being brought into the State. Judgments obtained before the foreclosure of such a mortgage not recorded, have a precedent lien.

OF FRAUDULENT CONVEYANCES.

The statutes of 27 Elizabeth and of 13 Elizabeth, upon the subject of fraudulent assignments, and deeds to defraud creditors, are, in original terms, of force here. These provisions are too well known to make it necessary to copy them.

OF WILLS AND TESTAMENTS.

Devises and bequests of lands must be in writing, signed by the devisor, or by some person in his presence, and by his express directions, and be attested in his presence by three or four credible witnesses. (25 George II.)

Wills of personalty only revokable by writing, and proved by three witnesses at least.

The 29 Charles II., upon the subject of nuncupative wills, are of force here.

Wills and testaments are void, if not registered within three months from the testator's death.

Art. III.—PROTECTION OF VESSELS FROM LIGHTNING.

To Freeman Hunt, Esq., *Editor of the Merchants' Magazine.*

Dear Sir:—I have read with great interest the article in your Magazine for December last, on *The Protection of Vessels from Lightning*, as I did, at the time of its appearance, the article of the Merchants' Magazine of June, 1846, to which it alludes.

For some years I have regarded the subject of marine lightning rods as one of vast importance, and yet, although abundantly understood to answer the highest ends of practical utility, in its theoretical affinities far from being exhausted by the researches of science. It is replete with curious and instructive phenomena, alike worthy of the continued study of philosophers, and of the liberal patronage of merchants and governments interested in the floating palaces of commerce, and navies.

Motives of humanity, so well urged by your December correspondent upon the consideration of your readers, conspire to invest it with powerful claims upon the enterprise and means of the mercantile and naval men of our country; and more methodical concert of action and provision in its behalf by the general government and ship-owners, may advantageously be instituted. Nay, it should not be longer neglected.

The federal government has deemed it incumbent upon its constitutional and exclusive guardianship of commerce, to prescribe by law certain provisions and stores, such as medicine-chests, &c., that every merchant ship shall possess before clearing from port on a voyage. It has imposed proper vigilance and penalties upon cases of neglect in these particulars.

Since the law is as well established that metallic conductors, properly fitted in respect to form and position, will completely protect vessels and their crews and passengers from the destructive effects of atmospheric electricity, as that medicines, judiciously administered, will relieve the men who work these vessels, and the passengers who sail in them, from the effects of disease; and since death and destruction can visit neither one

nor the other, where no precautions are taken, with more certain or terrific power than in the shape of the electric fluid, why is it that the government of the United States has thus long neglected to exert its prerogative in behalf of commercial interests, and the seamen, who constitute their and the nation's bulwark, in suitable legal enactments on this subject? Why not here, as in other matters, specifically exact the requisite means of preservation—the size, form, and number of electric conductors—to be provided, and properly adjusted to every vessel that leaves an American port?

Can it be that anything problemetical in respect to the sufficiency of these means to answer the desired ends, remains to be solved? Is not the testimony of Franklin, of Beccaria, of Cavallo, of Hare, of Henry, of Faraday, of Wheatstone, and of a host of other philosophers, uniting all of eminence among either the dead or living since the day of Franklin's earliest discovery of the fact, sufficient to set at rest all skepticism upon the subject? The official report of the Committee of the British Admiralty, adverted to by your before-named correspondents, sets out with the incontrovertible truth on the subject of conductors, thus:—"*The fact of their efficacy may be considered to be established beyond all doubt by the experience of the last eighty years, and the* UNANIMOUS OPINIONS OF SCIENTIFIC MEN OF ALL COUNTRIES."—Annals of Electricity, vol. 5, page 1.

An authority thus eminent and emphatic cannot need enforcement or illustration by quotation of the individual opinions, nor of the instances on record of actual demonstrations, by which it is supported.

I will only remark, that according to the learned Mr. Cavendish, "the chances of escape from lightning is in this way increased by at least four hundred million to one, even with a conductor of iron."—*W. Snow Harris' Annals of Electricity, vol.* 5, *page* 213.

To the ship-owner, and to the national legislator, it must be an equally sad and comfortless reflection, when they read of the destruction by fire, or other disability from lightning, of some noble ship at sea, carrying hurriedly and awfully into an insatiate eternity the confiding crew and passengers, that a few almost costless strips of copper or iron rods, judiciously affixed to the exposed masts and hull of the otherwise doomed vessel, would have passed her and her dauntless inmates unscathed from beneath the fiery shock, and beyond every shadow of doubt and danger!

If every vessel that passes into the Gulf Stream in going to or from the ports of the United States, were liable, in despite of all human foresight and skill, to be carried within the soundings of some island where grows nothing but the fabled *Bohan Upas* tree, and, of consequence, be exposed to the fatal strokes of its effluvia, and yet it were well known that there existed a very common and cheaply obtained herb, the disinfecting efficacy of which on board of ships were equal to a perfect counteraction of all the noxious influences of the dreaded island, can it be doubted, that among the earliest sanitary laws which the Congress of the United States would throw around her noble mariners, both in the merchant and naval service, would be one demanding a supply to every ship of the invaluable herb mentioned?

And yet, the case imagined and the case that actually exists, are equally simple in their elements, no less imperative in their claims upon the government, and no less susceptible of ample and full relief. But the existant one, so far as the guardianship of Congress over the merchant service

of the country is concerned, is neglected to the same and like degree as the imaginary one! Ought it so to be?

To the British Admiralty's report to Parliament, in all its details, I have not now opportunity of recurring; but from your two correspondents' articles, and from other sources of information at hand relating to that report, I gather the following facts as being contained in the record of observations which Sir W. Snow Harris presented to the Admiralty. "He reports," says your December correspondent, "one hundred and thirty-three cases of injury from lightning in the *British navy* during twenty-four years of war, and fifty-five during the same number of years of peace," while the vessels were mostly laid up in ordinary.

"In one hundred cases alluded to, sixty-two seamen were killed, and about one hundred and fourteen wounded. These are exclusive of one case of a frigate, in which nearly all the crew perished, and of twelve cases in which the numbers killed or wounded were set down in the accounts given as *several* or *many*."—*Silliman's Journal, vol.* 38, *page* 113; also *Merchants' Magazine, vol.* 14, *page* 524.

Mr. Harris reported 174 cases of vessels struck by lightning, registered by him up to 1839; and your December correspondent says, "In a publication by W. Snow Harris, Esq., F. R. S., in the year 1844, two hundred and ten cases are alphabetically reported *in the British navy alone*, of injury from lightning." And it is said that "the injuries sustained in the British commercial marine" are "equally or more extensive in proportion to the Royal Navy."

Your earlier correspondent says, "I have kept a record of lightning storms for a number of years, and of the damages done by lightning, and of the destruction of life and property. The catalogue now numbers more than *four hundred cases of loss of life.*"—*Merchants' Magazine, vol.* 14, *page* 524. This aggregate includes, I presume, cases on land as well as on the water.

Looking at these numerous evidences of constant exposure of vessels to lightning, the imagination ought not to be forced to conjure up the existence of an island of Bohan Upas trees, to arouse the sensibilities of American merchants, and of the American Congress, to a just and favorable contemplation of the seafaring man's claim upon the further protection due to his profession, in the matter under remark. The exposure is imminent—longer neglect will be scarcely short of criminal, on the part of both merchants and Congress.

The genius of *Franklin* is venerated, yet its humane admonitions are disregarded by his countrymen. Aided by the ingenuity of *Morse*, a worthy disciple of *Franklin*, we know they promptly employ the electric rod everywhere; that *money* is to be made by the use of it. Shall it be said, that where *life* is to be saved by its use, its availability is not cared for? It would be a national sin, as well as a national shame, for characteristic distinctions, like the ones here put, to become proverbs against our countrymen.

The different forms of conductors that have been hitherto used in vessels are—

1st. A copper chain, composed of rods about two feet in length, and about one-sixth of an inch in diameter, with an eye at each end. These rods are linked together by rings, and the conductor terminates in a rod of the same dimensions, which tapers to a point, and is made with a turn

in it near the base, to receive the line, to which it is attached throughout its whole length, for stopping to the topgallant-backstay when triced to the mast-head. These were formerly the only ones in use in the British navy, and are still used there to some extent, as they are in the American navy.

In some merchant vessels, iron chains, instead of copper, similarly made to the above, have been in use.

2d. A metallic rope, composed of mixed metal wire, attached to the mast-head immediately under the truck, leading down to the topgallant cross-trees, and thence by the topgallant-backstay to the channel, and descends into the water. A copper spindle, about three feet in length, tapering from an inch to a point, is screwed into the mast-head, nine inches of the upper end being hardened and gilded. These have been in use in the French navy.

3d. Two plates of copper, rivetted together so as to form an electric and continuous line of metal, the inner plate being one-sixteenth, and the outer one-eighth of an inch in thickness, inserted in dovetailed grooves in the after part of the masts, and extend from the truck to the keelson; a copper plate of the same dimensions is led over the caps, and the continuity is preserved at all times by a tumbler on the caps, consisting of a short copper bar, with a hinge at the base, by which it leans against the conductor of the topmast, whether bedded or housed; a stop is placed on the exterior, by which the tumbler is prevented from falling backwards. Copper plates of equal dimensions to those on the lower masts are placed under the heels and steps of the masts, and are thence led along the keelson in contact with the copper fastenings. In order to insure connection with the copper sheathing, bolts are driven transversely through the keel, so as to meet those passing down from the keelson. Copper plates are likewise led along the under side of the beams of the lower and orlop decks to the principal copper fastenings, and ultimately terminate in the sheathing, thereby combining all the chief masses of metal in the hull and spars of a ship with the conductors, and affording, by means of its ultimate connection with the copper sheathing, a vast surface in contact with the water for the dispersion of the electricity.—*See Committee of British Admiralty Report, abridged; Annals of Electricity, vol.* 5, *page* 5.

The last described conductors are the invention of W. Snow Harris, alluded to by your correspondents; and several of them were for many years affixed to British naval vessels, with evidences of an indubitable character, derived from actual experience and observation, of their unqualified efficacy, prior to the Admiralty report of 1839, last cited. Your December correspondent says the Board of Admiralty finally disapproved of them, because of their leading the electric current into the body of the vessel. This decision I have not seen. The committee of investigation, appointed by the Board on the subject, came to the opposite conviction, and upon the most minute testimony, derived from particular examination made by Professors Farraday and Wheatstone, as from other sources. In like manner they overruled every objection made to this plan of conductors, and several were made with earnestness. The conclusion of their report was as follows:—

"We again beg to state our unanimous opinion of the great advantages possessed by Mr. Harris' conductors above every other plan, affording

permanent security at all times, and under all circumstances, against the injurious effects of lightning, effecting this protection without any nautical inconvenience or scientific objection whatever; and we therefore most earnestly recommend their general adoption in the Royal Navy."

Other forms of marine conductors have been suggested, but I am not aware that they have been reduced to practice in any instance. One of these, by Martyn Roberts, Esq., was submitted to the British Admiralty Committee conjunctively with the plan of Mr. Harris, and is in its elementary parts and form similar to the French naval conductors. He thus describes it:—

"Let conductors be made of a metallic rope, consisting of some hundreds of pure annealed copper wires, laid up as a common hemp rope; it will be pliable, may be rove through blocks, and traverse as well as any other rope. Let this rope be fixed to a copper point at the highest mast-head, led down the after part of the mast until it arrives at the lower mast-head, and from thence led as a backstay to the outside of the ship, and there fastened to her copper sheathing. By this means, a perfect metallic conducting channel is maintained for the lightning from the highest point to the water, without interruption or contact with anything that can possibly produce ill effects."—*Annals of Electricity, vol.* 1, *page* 469.

Mr. Sturgeon, the able editor of the Annals of Electricity, zealously contested the efficacy and safety of Mr. Harris' plan of conductors, mainly on the ground, first, that their form and adjustment were calculated to produce *lateral* discharges of the electric current, equally dangerous and destructive as the main charge; second, that conducting the charge into the hold of the vessel by means of lateral discharges, the powder magazines and other combustible material would be exposed to additional hazards of ignition, yielding to the necessity of having fixed and permanent conductors. Mr. Sturgeon proposed substituting four cylindrical copper rods to each lower mast, situated exterior to the shrouds, having one *before* each fore-shroud, and one *aft* each after-shroud. The upper extremities of these conductors to be attached to the fore, main, and mizzen tops, as distant from the masts as circumstances will allow, and in any manner most secure and convenient. The lower ends of these copper rods to be fixed to the chains on the outside of the fore and aft shroud of each mast, and continued by broad and stout strips of copper to the copper sheathing of the vessel. The topmasts and rigging he proposed to protect in a similar manner, with inflexible rods, or flexible metallic ropes, and united at the lower ends with the first set. For the topgallant-masts he proposed adopting Mr. Harris' plan of strips of copper into grooves of the wood. Other minute details were suggested.—*See Annals of Electricity, vol.* 4, *page* 184. To avoid objections arising from the interference of the conductors thus confined to the working of the ship, Mr. Sturgeon subsequently changed the positions of them in part.

J. Murray, Esq., an electrician of note in Europe, and the inventor of the application for electric conductors of *hollow* copper tubes, consisting of gas piping, rendered continuous by connecting joints, and somewhat extensively used abroad for buildings, proposed an application of the like conductors to masts of vessels, made in the form of "flexible and sliding tubes, like those of a telescope, a provision readily adjusted to the case of a topmast, or topgallant-mast, when struck in a storm."—*Annals of Electricity, vol.* 3, *page* 65.

It will have probably struck the attention of the reader who commenced the perusal of this article with no preconceived and favorite theory explanatory of the laws that govern electric phenomena, as manifested either where an artificial conductor is or is not present to aid their development, that all the before described plans for marine conductors proceed upon the same theory that pertains to conductors affixed to buildings on the land in one particular, viz: that of conducting the electric current *down* from the clouds *above*, into the water *below*. No other thought seems to have interposed to suggest any variation from this theory; and yet, apart from the efficacy of artificial conductors to ward off the electric stroke, by receiving and conducting it away from the vessel, this *downward direction* of the force is the only point of common agreement among all the electricians whose plans have been cited.

Views no less dissimilar are entertained by the most eminent philosophers of the same and different countries, respecting the nature of electric action, the forces which produce it, whether it exists *per se*, or is the result of chemical agency. Some maintain that it combines the operations of two distinct forces, called vitreous and resinous; others that it consists of *one* only; others that it is independent of electric matter, and that all electric phenomena are the effects of rotatory or vibratory motions communicated to particles of common matter, on which they are displayed.

These antagonistical opinions have ran almost concurrently with the history of electric science from its early dawn. It is not my purpose, however, to attempt an analysis of the arguments on which either rests, nor to offer any solution or adjustment of them. I aspire to no such scientific eminence. I advert to their existence only to shield from the charge of *presumption* the idea I wish to advance, that, while the exact nature of the electric action remains in dispute, in respect to its primal constituency, a general misconception of the laws of one of its important phenomena *may be* still entertained, not unworthy of re-examination, and possibly of correction, viz: whether the electric force which affects vessels at sea, has its direction *upwards* to the clouds, or *downwards* to the water.

The seeming simplicity and uniformity of the evidence which furnishes the generally received answer to this query, which is the ocular demonstration made to observers by the *running* light or flash of the electric discharge, and which is rarely otherwise than *downward*, is not conclusive as to the correctness of that answer; but this may be *the very cause* of the long continuance of its error, even with philosophic minds.

In natural philosophy, nothing is more liable to be erroneous than our *first impressions*. For instance, who, at first thought, would not suppose the *hardness* of a substance would be proportionate to its *density?* and yet, we know that a diamond, the hardest substance in nature, has a specific gravity three times less than lead, which is so soft that it may be scratched by the finger nail. So, who would not, at first thought, suppose Indian rubber to be more *elastic* than glass? and yet, its elasticity is not comparable to that of the latter. So we say, at first thought, that lead is heavy and a feather is light, under the general notion that one is heavier than the other; whereas, the difference only arises from their difference in their surfaces upon the retarding air; and in a *vacuo*, the largest mass of lead, and the smallest feather, *would fall through equal*

spaces in equal times. So, at first thought, we are disinclined to believe that any body of matter once set in motion would continue to move *forever*, unless stopped by some exterior power. We are equally incredulous, that there is no such thing in nature *as solid matter;* that no two particles of matter, even in what we call *solid metal*, are in close contact. But *Newton* admits, and reason instructs us to believe, that "atoms, even of the densest solid, are placed at distances from one another, *infinitely greater than their own diameters.*"

I might multiply these illustrations, but will content myself with quoting the admonitory remark of one of the most distinguished philosophers of the day, that "it is no less necessary to test the accuracy of our notions derived from common observation and the first impression of our senses, than to guard against the careless adoption of ill understood generalization of the results of experiment in our after progress; and we must be particularly careful to correct the prejudices, which are but too apt to infect the mind from the first fountain of our knowledge."—*Daniell's Study of Chemical Philosophy*, § 8.

From the tenor of these latter remarks, the reader will have inferred that the writer dissents from the generally received theory, that the electric force which affects destructively vessels at sea, *descends* from the clouds to the ocean, instead of *ascending;* and that the *running light*, or streak of the electric discharge, denotes the direction of the charge. Heterodox to the eyes of admitted scienee as it may appear, the reverse of these opinions constitute, in my mind, the preferable theory—a theory most consistent of any with the correct appreciation of the phenomena of the instances reported upon by Mr. Harris and Mr. Meriam, your first correspondent upon the subject.

Among the general facts derived from Mr. Harris' register of observations up to 1839, to which I would direct attention, are as follows. He says, "From about one hundred cases, the particulars of which have been ascertained, it appears that about *one-half* of the ships struck by lightning, *are struck in the mainmast; one-quarter* on the foremast; *one-twentieth* on the mizzenmast, and not more than *one in a hundred* on the bowsprit. About one ship in six is set on fire in some part of the *masts*, *sails*, or *rigging*. In these 100 cases, there are destroyed or damaged, 93 lower masts, principally line-of-battle ships and frigates, 83 topmasts, and 60 topgallant-masts."

Mr. Sturgeon, who was contesting the efficacy of Mr. Harris' plan of conductors to guard against what the former alleged to be *lateral* and *oblique* discharges, remarks:—"By looking over the particulars of 174 cases, which Mr. Harris has collected, I find only 44 in which the topgallant-masts appear to have been injured; and as out of these 44 cases there are 13 in which the topgallant-masts were lost, broken or damaged, accidents probably occasioned by the mere falling of those masts when the others below them were struck, there would appear to be only about 31 cases out of the 174 in which the topgallant-masts have been absolutely struck by the lightning. It is probable, indeed, that the proportion is even *less* than this; because of these 31 cases there are 15 in which the topgallant-masts were shivered only, a species of damage which, if occurring near to the heel of the masts, might easily arise from lightning striking the ship no higher than the topmast head. Lightning striking the topsail yard arm, when that sail is set, or the cross-trees at other

times, would be very likely to damage the lower part of the topgallant-mast."—*Annals of Electricity, vol.* 4, *pp.* 172–3.

He again says :—"It appears from Mr. Harris' list of cases that the lower masts are more frequently injured than the topmasts, and the topmasts more frequently than the topgallant-masts ; hence, although the Rodney and some other ships have been struck *above* the topmast, *it is obvious*, that lightning more frequently strikes the rigging *below the topmast head*, than above it ; and by taking into account the damage done by the mere falling of the topgallant-mast, as a consequence of the masts below it being struck and injured, it is highly probable that the cases in which lightning strikes the spindle at, or above, the topgallant-mast head, bear *a very small proportion* to the cases in which lightning strikes the sides of the masts and yard arms."—*Ibid, pp.* 177–8.

I wish the reader to note, that Mr. Harris assigns no comparative number in his cases, to injuries occurring to the *hull* of vessels struck by lightning, particularly *below* the water level. The truth is, the instances of this kind are so rare, that *no general law has been attempted to be deduced from them by any person.* And yet, who can doubt that *this almost uniform exemption of the hull from the electric charge is due to some general law which has been singularly overlooked hitherto by electricians ?* Such a law, if to be found consistently with known laws of the electric action, cannot but open the door to yet higher and more perfect knowledge of this interesting science. I hope to be able, satisfactorily, to deduce and establish it, and in harmony with the theory advanced by me, that the direction of the electric forces affecting vessels at sea are *upwards*, and not *downwards ;* that, although instances of the latter kind may occur, *they are exceptions to the general law of electrical discharges upon the ocean.*

In all the details of Mr. Harris' cases that have come to my knowledge, there is not one decided case of the electric fluid having passed into the hold below the water level, *unless directed there by a metallic conductor.*

The nearest approaches to a statement or description of such a case by him, are the following :—

In a controversial letter of his to the editor of the Philosophic Magazine and Journal, in reply to an article by Mr. Sturgeon, this passage occurs :

"Mr. Sturgeon's assertion that a conductor on a ship's mast would operate on the magazine is therefore quite unwarranted. Besides, we have many instances of the masts *having been shivered by lightning into the step*, while acting as partial conductors, without any such consequence ; as happened to the Mignonne in the West Indies, the Thetis at Rio, the Sweden, Gibraltar, Goliath, and many others."

The case of the Mignonne is thus given to Mr. Harris by Admiral Hanker. After describing the appearance of the weather . . . . "About midnight the heavens seemed to be one continued flame, and soon after the main topmast was shattered into probably fifty pieces, scattering the splinters in all directions ; *the mainmast was split down to the keelson*, and a sulphurous smell *came up from the hold*, which occasioned some to cry out that the ship was on fire. Two men were killed in the maintop, being burnt black, and having some splinters sticking in them ; and a man who was sleeping on the lower deck with his head on a bag, near the armorer's bench, was found dead, with one black speck in his side ; another man sleeping by him was not hurt."

In an article by Mr. Harris in 1832, copied from an Edinburgh journal by Silliman's Journal, vol. 21, p. 350, is the case of the French ship Conquin, struck while at anchor in the bay of Naples, thus given:—"The electric matter passed, in this case, close to the main hatchway, *upon a spare anchor*, and from thence *through her bottom, a little below* the water's *edge*, on the larboard side."

The next approximation to a case of this description, in all of Mr. Harris' cases I have seen, is that of the British naval ship Snake. The occurrence is thus detailed:—"The electric fluid entered main truck, shivered royal mast, splintered topgallant-mast, then over *chain* main topsail tye without damage, to within eight feet of the deck, so far as the topsail halliards. Finding an obstruction here in the ropes, it again severed on the mast, and became divided on the saddle of main boom; *one portion passed out of quarter deck port to the sea*, the other to lower deck and *down the mast, and distributing itself on the hull*, affecting persons below. The mast, on being examined at Halifax, was sprung about the partners, two inches deep and fifteen inches round, *was perfectly burst asunder at the step*, hence the stock had extended to the keel; the electric matter, consequently, must have passed by the metallic bolts in the keelson to the sea."

The next and last approximation of a case of the nature under remark, was "that of H. M. ship Hyacinth, which had both the fore and main topmasts and topgallant-masts destroyed by lightning in the Indian ocean, in 1833. The electric fluid shivered those masts from the truck to the heel of the topmast, where it became assisted by the chain topsail sheet leading to the deck, and so did no further damage to the mast; thence it received assistance from the copper pipe of Hearte's patent pump, leading to a small well, and thence by a second pipe through the ship's side under water, and *by this passed safely into the sea*."

If the reader will now turn to Mr. Meriam's article in your Magazine of June, 1846, he will see the details of about fifty cases, in not one of which is the evidence to be found, that there exists *any general law that admits* of the electric current manifesting itself below the water level of a vessel struck by lightning on the water. It is only necessary for the anxious student of electric phenomena to criticise the reported cases, to become satisfied, that wherever the lightning descends below the water level in a ship, it furnishes an *exception* to the general law of its course, and is conducted by a foreign influence that overpowers the law, and establishes an exception. He will find numerous instances of its reported *descent* with destructive violence to all in its way, until within a few feet of the water, and there leaving the masts *to leap overboard*. In the famous case of the packet ship New York, the lightning "struck her main royal mast, burst asunder three stout iron hoops with which it was bound, and shattered the mast head and caps. It passed *down* the mainmast, one branch entered a store room and demolished the bulk heads and fittings; thence it went into the cabin, and, *conducted by a lead pipe, passed out through the ship's side, between wind and water*, starting the ends of three five inch planks."—*Silliman's Journal, vol. 37, p. 320.* In vol. 21, p. 351, the other branch of the fluid is described as having "passed into one of the cabins, and shivered to atoms the plate of a large mirror without hurting the frame; after this it fell upon a piano-forte, which it touched with no very delicate hand, and left it dismounted and out of tune;

from thence it passed through the whole length of the cabin floor, which was damp at the time, and *out of the stern windows into the sea.*"

To bring more directly to the reader's view the general direction which the fluid is described as taking, we will recount a few cases, as fair exponents of all. He will observe, also, how distinctly it is traced and often *seen* to strike *downward.*

In 1830, the Athol, of 28 guns, was struck by lightning. "At this time the topsails were lowered upon the caps, and the other sails furled. The ship had chains for hoisting topsails, which lay in the direction of her topmasts; also a chain for topsail sheets, which led along the lower mast. When the electrical explosion fell on the truck, it shivered the topgallant-masts into pieces so far as the commencement of the first chain; here, being assisted by the chain, it passed on without damage to the topmast, to where the chain terminated, thence with damage over the head of the mast, until, being assisted by the lower chain, it passed without damage to the deck; *on reaching the deck*, it passed, by means of a bolt through a beam in the forecastle, upon the chain cable, and *thence into the sea.*"

In 1811, the brig Belleisle, of Liverpool, was struck. "A vivid flash of lightning shivered her fore topmast and foremast, tore up the forecastle deck, and struck a hole throughout her starboard side, starting several butts in the bends, *where it passed into the sea.*"

The United States ship Amphion was struck in 1822. "The lightning *descended* by her mizzenmast, destroyed the compasses and cabin furniture, splintered and tore into pieces the ceiling, bulkheads and rudder-trunks, shivered two hold beams, and passed out through the quarter into the sea, *tearing off part of the sheathing in its course.*"

The great accumulation and intensity of the charge that struck H. M. S. Rodney, on the 7th of December, 1838, eight or ten leagues to the eastward of Cape Passaro, and the minuteness of details of the occurrence furnished, will serve as an illustration of a greater variety of phenomena than any other case on record. And although it be long, it is well worth a repetition here, and will complete the data of observed facts needful for an illustration of the theory I adduce.

From Annals of Electricity, vol. 4, p. 167 and *seq.*—"*Progressive course of the electric fluid.*—The vane staff, which is six feet long, with a copper spindle (on which the vane traverses) of about 10 inches in length, surmounted by a gilt wooden ball, the size of an orange, shows its first effect, (the ball and spindle were never seen after the shock,) being split but not broken, and one side of it blackened; the copper binder round the truck was burst asunder, a small piece broken out of the truck, and one of the metal sheaves for signal halyards slightly fuzed. From this, after leaving the royal pole uninjured, it appears to have passed inside the copper funnel for topgallant rigging and iron hoop of the hounds of the mast, shivering the topgallant-mast to atoms, from thence to the topmast cap, not a piece having been seen the size of a common walking cane, and the sea was literally covered with its splinters to a considerable extent. Its marks are now lost for many feet, notwithstanding the shock about this spot must have been most terrific, as it was in the topmast cross-trees where the poor fellows who suffered were at the time, and also the heel of the topmast (which was not at all injured below the cap) was forced upwards into the cap, the fid being raised about eight inches above the trussel-trees with such force that the top burton block strop was car-

ried away in trying to house it down again, and after all were obliged to cut it out, not being able to clear it in any other way. Its next appearance is on the main topmast, ten feet above the cap, seemingly attracted by the iron-bound tye blocks and iron hoops on the topsail yard, (being under a treble reefed topsail,) from whence it rent an immense splinter out of the mast down to the lower cap, going nearly into the core of the mast, and set fire to the tarry and greasy gear about the bunt of the topsail yard, after taking this large splinter of nearly one quarter of the substance of the mast away. Its next positive mark is on the starboard lower trussel-tree, the lower cap, head of lower mast, and heel of topmast (both iron hooped) having escaped unhurt. It shook and blackened the trussel-tree, rendering it unserviceable, and then must have entered the mainmast, spreading and passing down both sides, bursting thirteen of the large iron hoops in its course, and knocking out pieces of the side trees and main stick in several places, and *escaped from the mast in the shape of a fire ball, seven feet above the deck, and was seen to go over the starboard* (leeward) *netting right over the gun abreast of the mainmast,* rending the hammock cloth in several places, carrying away one rattlin and stranding another. Its exit, although fiery in appearance, was harmless in effect, merely injuring the cloth over a space of about a foot, and breaking the two rattlins, *when it was seen to strike the water a short distance from the ship.*

"*Effects of the electric fluid in its course.*—Knocked overboard (at least they were never picked up or seen) the gilt ball, copper spindle, and calico vane from the top of the vane staff—split the vane staff—broke the copper binder round the truck—broke a piece out of truck, and slightly fused one of the metal sheaves for signal halyards—cleared away the whole of the main topgallant-mast from the hounds of topgallant rigging to the topmast cap, not leaving a fragment aloft. Four men who had been sent aloft to unbend topgallant gear, and prepare for sending the yard down, were in the cross-trees at the time. John Rowe was struck dead as he was moving from the weather to the lee side of the mast for shelter from the rain; he was just on the aft side of the mast at the moment, and fell astride the after cross-tree, where he was held by some ropes falling round him. He never spoke. Thomas Hollingsworth was standing on the after shroud of topgallant rigging, to leeward of the mast, and holding on by the after cross-tree. He was so seriously injured as to be sent down in a chair, and died in seven hours after. Hugh Wilson was standing on the foremost shroud of topgallant rigging, holding on by foremost cross-tree, and close to Hollingsworth. He states that the shock threw him forward, and Hollingsworth aft. He was only slightly hurt, and only two or three days in the doctor's list. The other man, Charles Prynn, was to windward, standing on the cross-tree, holding on by the foremost shroud of topgallant rigging, and received so slight a shock that he did not even apply to the doctor. Wilson heard no thunder. The first-named two men had every stitch of clothes burnt from their bodies, excepting just the wristbands and lower parts of the trousers, which was left on the wrists and ancles. They presented a shocking spectacle; their bodies discolored and hair singed from their persons. The next place is a large splinter out of the main topmast, from ten feet above down to the cap, setting fire to the gear about the topsail yard, and then commences its destructive force about the mainmast, first of all giving a severe shake

to the starboard lower trussel-tree. It is hardly possible to give a description of its effects on the mainmast; the mast should be seen fully to understand it; but some idea may be formed when it is stated that out of twenty-eight large iron hoops, five inches wide and half an inch thick, between the deck and trussel-trees, thirteen were burst asunder, and that for a space of fifty-three feet its ravaging effects can be traced the whole way, and the spot whence it made its final escape is several inches deep in the mast. On the starboard side a large piece of the mast is broken out (six inches deep) from the third to the sixth hoop above the deck, and from the eighth to the ninth hoops. The cheek or side tree, several feet of the lower part gone altogether, and the other part nearly shook all to pieces. The larboard side ekin piece gone from the sixth to the eleventh hoop, and the mast burst out from the ninth to the eleventh, and from the thirteenth to the fifteenth, and the cheek very much shook. The hoops carried away were mostly the clasp hoops of side trees, but some of the body hoops were also burst asunder, and *strange to say*, the awning hoop on which the main trysail mast steps and mizzen stays reeve, lost one of its forelocks, notwithstanding a piece of copper had been nailed over the clasp part, *the forelock which was driven downwards was gone*, with a piece of copper, and never seen, while *the one which drives upwards was left in its place*, and held the hoop together. There were eighteen body hoops between the deck and trussel-trees, and ten clasp hoops round side trees—four of the body hoops below side trees were broken. None of the hoops *on* the head of lower mast, or on the head of the topmast were touched.

"Several men assert, that *balls of fire were running about the lower deck, and that they ran after them to throw them overboard.* This seems strange; but if so, and it is hardly possible several could be deceived, it could be nothing more than flashes or rather sparks passing down the different hatchways after the explosion, and less active than in the first descent; at all events, it is certain there was a strong sulphurous smell below, particularly in the pump well, and sparks seen by many of the officers. It is remarkable that the electric fluid seems to have jumped from metal to metal; first the copper spindle, then the copper funnel of topgallant rigging, and iron hoop round the mast to the head of the topmast, from thence to the iron-bound blocks and hoops on the topsail yards to the main cap, and then to the lower trussel-trees, taking all the hoops downwards, passing over a gun into the sea.

"The mast has since been taken to pieces at the naval yard at Malta, and its interior shows no defect, in fact; not the slightest injury appears about the mast, except what was exteriorly displayed. It is marked in some places, even on the spindle, (centre piece,) as if a train of powder had been flashed on it, but nothing more."

In another paper I will present the deductions which result from the data given in the present article, and from acknowledged principles of electrical matter, in exposition of the new theory of the electric action upon vessels upon the water, which I have herein advanced. It may at least serve the good purpose of exciting more careful observation of this class of phenomena, so important to be thoroughly understood for the preservation of life and protection of property, however erroneous my theory may in itself be hereafter proved. FRANCIS O. J. SMITH.

Forest Home, *near Portland, Me.*, Jan. 2, 1849.

Art. IV.—FRIENDLY SOCIETIES:

WITH REFERENCE TO ANNUITIES AND LIFE ASSURANCE FOR THE POOR.

THERE are few institutions capable of being more generally useful, and to produce more real relief, than friendly societies, provided they are based on correct principles, and are conducted with zeal, prudence, and economy. They are particularly so to the laboring classes, in averting, by their own efforts, the misery which poverty adds to the bed of sickness, to the infirmities of age, and to the hour of death. These advantages are greatly enhanced in value, by the consciousness that they are the fruit, not of benevolence or the charity of others, but of the members' own frugality and foresight. Indeed, few things can be conceived more gratifying than the enjoyment of benefits which are the result of our own doing. It raises us in our own estimation—it makes us feel that we are of some value in society—that we contribute to its welfare by our labor, without being burdens upon it in our misfortunes.

Frugality and prudence, in preparing for the future, give to a man a moral independence and a happiness, of which a mere pauper can scarcely form an idea. A man with such habits is a better husband, a better father, a better servant; he is therefore more likely than others to be employed where confidence is required; his services will be more productive to himself and more valuable to others. He will find more pleasure in the midst of his family, because he knows that he has done his duty to them, and consequently has a right to look for their approbation.

Unfortunately, however, unsound calculation, bad management, and even fraud, too often have been the cause of thwarting the good intentions of these institutions. Starting with members in the prime of life, the claims are in the beginning but few, inducing a belief of prosperity, the funds increasing wonderfully in appearance; but in the course of a few years, with advancing age, sickness gradually increases, claims for funeral money come in oftener, and it is at last found that the contributions have not been adequate; that benefits have been promised which can never be realized, and that ruin and disappointment are inevitable.

The first object must be *security*. This can only be obtained by following the mathematical rules which are so well established by intelligent men, and the fruits of the experience made by others, and which have been published by order of the British government. The second object must be *justice*, in charging to each member neither more nor less than the true proportion of risk which he brings into the society, taking into careful consideration his age, and the probability of the amount of claims he may have to make. Too little attention is paid to this in the numerous benevolent societies in which provisions are made in cases of sickness, and much less to the probabilities of paying funeral money for himself or wife.

McCulloch (who stated that from the 1st of January, 1793, to the commencement of 1832, no fewer than 19,783 friendly societies were enrolled, of which 16,596 were in England, 769 in Wales, 2,144 in Scotland, and 274 in Ireland) remarks:—"It should also be recollected that the progress of these societies, though great and most honorable to the laboring population of Great Britain, has been not a little counteracted

by the ignorance and mismanagement of their officers, and by the real difficulty of establishing them on a secure foundation. The great error has consisted in their fixing too high a scale of allowances. At their first institution they are necessarily composed of members in the prime of life; there is, therefore, comparatively little sickness and mortality among them. In consequence, their funds rapidly accumulate, and they are naturally tempted to give too large an allowance to those members who are occasionally incapacitated. But the circumstances under which the society is placed at an advanced period are materially different. Sickness and mortality are then comparatively prevalent. The contributions to the fund decline at the time that the outgoings increase; and it has not unfrequently happened that the society has become altogether bankrupt, and that the oldest members have been left, at the close of a long life, destitute of all support from a fund on which they had relied, and to which they had largely contributed."

The rapid and extraordinary increase of friendly societies in Great Britain attracted the attention of the House of Commons, and a select committee was appointed, whose reports in 1825 and 1827 prepared the way for the passing of several acts, establishing certain rules and regulations, to which all societies have to conform. Every effort has been made by the said committee, and by the Society for the Diffusion of Useful Knowledge, to procure the best materials by which the chances of sickness and of life could be accurately ascertained; and with the assistance of highly intelligent men, tables have been computed, which show the contributions required in single, annual, or monthly payments, to secure benefits of various descriptions. The benefits granted by friendly societies are—

1st. An allowance of a certain weekly sum during sickness in proportion to the single, annual, or monthly contribution, to cease on arriving at a certain age.

2d. The payment of a weekly sum on arriving at that age, and to be continued until death, whether he be in good or bad health.

3d. The payment of a certain sum on his death.

4th. Every member is entitled to medical advice and medicine from the physician employed by the society.

The first of these benefits is well known in this country, and practiced by our Health Insurance Companies, and by various benevolent societies; though I fear that mathematical principles and the true chances of sickness, in proportion to age and other circumstances, are but seldom observed, and that the errors above alluded to have in many cases been committed, and must eventually lead to the same disappointment, notwithstanding the apparent success of which they may now, in their infancy, boast.

How important it is to charge each member in due proportion to the average risk he brings to the society, will appear from the tables established by the experience of the English friendly societies, (see Ansell's Treatise on Friendly Societies,) showing the quantity of sickness experienced by an individual in the year following each age, expressed in weeks and decimals of a week, and the single and annual contributions required to obtain £1 a week during sickness, until the age of 70.

INTEREST 4 PER CENT.

AGES.	20.	30.	40.	45.	50.	55.	60.	65.	69.
Weeks...	.776	.861	1.111	1.351	1.701	2.256	3.292	5.672	10.086
Single....	£21.69	£24.85	£29.53	£32.26	£34.91	£37.01	£37.25	£30.73	£9.89
Annual..	1.22	1.56	2.16	2.62	3.24	4.12	5.44	7.54	9.60

The observations not having extended beyond the age of 70, no calculations could be made on the value of a weekly allowance in sickness after that age; the English societies, therefore, limit it to that period; but, instead of it, make a constant allowance from that time until death, the expectation of life being known. It is, therefore, a deferred annuity, for which a separate charge is made, and may be fixed so as to commence at 60 or 65. Another extra charge is also made for the sum to be paid at death, which is equal to a life assurance. The annual and monthly contributions are so calculated that they cease as soon as the annuity commences. A single payment entitles the member to all these benefits without any further payments.

It will be seen that these calculations are based upon true mathematical principles; that they extend only as far as actual experience has furnished data to measure the risk; and that each party is charged just as much as he will cost the society, on an average scale.

The great error made by our benevolent societies is, that they put no limit to the time for which the allowance for sickness is to be paid; and if a member lives to an age in which disease takes place more frequently, he will become the recipient of benefits for which he has given no equivalent, and will therefore be a burden to the society to which he belongs.

Another mistake is, that safety is expected in the accession of new members, who, being younger, sustain the funds in proper order, and make up for any deficiencies caused by the older members. This is true enough, but it is at their expense; for it is evident that if the fund is not sufficient to warrant the promised benefits, the new comer will have to pay not only to obtain the same advantages, but something extra to cover the losses by former members. Supposing a society composed of 200 members, and which has been in existence for the space of ten years, without admitting other individuals; that it is found, that in consequence of inadequate contributions, or by greater claims upon their funds than anticipated, their treasury is exhausted, or at least deficient, and are therefore unable to continue the same allowances; they conclude to admit more members, so that their higher initiation fees may restore their funds to their proper level. Now it is very clear that if the same amount of contributions has not been sufficient for the old members, it cannot be enough for the new ones; and if they are charged at a higher rate, it is in order to make up the deficiency caused by the former, and is therefore a manifest injustice to the latter.

Had no others joined, the society would have gradually expired, proving that the members had not contributed enough, and that, therefore, new ones were required to make up the loss; but as these will in the course of time be in the same situation, more new members will be wanted. Insolvency will not be avoided, but postponed, and the amount of deficiency constantly increased; like the merchant, who, finding himself behind in his affairs, avails himself of his credit to increase his purchases and debts; he holds himself up for a little time longer, but the day of

reckoning will at last come, and it will be so much more awful in its consequences.

The principle upon which friendly societies are founded, is to overcome the effect of fluctuations to which every individual is exposed. Taking a great number of them together in their collective capacity, the quantity of sickness and the expectation of life for each respective age has been as nearly as possible ascertained, and an average rate has been established for each. Some, of course, will be sick much oftener than others; but who will be so, cannot be told beforehand, because all have been considered equally healthy, otherwise they would not be admitted into the society.

By the example already given, it will be seen that a man of the age of 30 will experience, on an average, $\frac{861}{000}$ part of a week sickness during the year, while one of 50 years will have $1\frac{701}{000}$ week; and a society may expect to have to pay in that proportion of allowances during the following year. In a small society, it is impossible that this should be exactly the case, but the larger the number is, the nearer will be the average; and it is particularly desirable that an association should be quite numerous, if it is expected that the principle should work well. For this reason, friendly societies as they are established in England, will answer much better than our secret societies; because, if these should have as many members, as the others may have without the least inconvenience, their management would become exceedingly difficult, and for many reasons impracticable.

The members or subscribers to a friendly society are not required to attend any meetings, as they may send their monthly dues to the person authorized to receive them, and females may therefore become members as well as males.

The managers alone have certain days fixed on which they meet to transact business, and a general meeting only takes place once a year, to make a report to those who choose to attend it. There are, therefore, no rents to pay, except for a small room for the officers, in a central part, to be used once a week; no ornaments, banners, furniture, &c., to provide, and the whole expense consists in a moderate salary to one or more of those officers whose duties are too onerous to be obtained entirely gratuitously, and for some stationery. The duties of directors, trustees, &c., are so light, that public spirited men will be found in abundance to take charge of them; who will readily devote a few hours every month for it, and which is all that is wanted.

The object of friendly societies goes far beyond the advantages obtained in other benevolent societies and health assurance companies, because they provide not only for the sick, but also for the aged. In fact, what have the industrious most to fear?

1st. To be incapacitated to earn their daily bread by sickness—here the society steps in, to supply the food for his family, and to assist him with medical advice and medicine.

2d. To be unable to support himself any longer by work, on account of old age, and weakness of body and mind accompanying it—when the society provides him with a certain income until his death.

3d. To leave a family unprovided for—when the life assurance, or the sum to be paid at death, will be found a welcome assistance.

All these advantages are secured by a small monthly contribution,

made while he still was able to provide for himself, and which will cease just at the period when his strength and energy will begin to fail.

To give a clearer insight into the internal machinery of these societies, I offer some extracts from a work of the Rev. John Thomas Becher, entitled the "Constitution of Friendly Societies upon legal and scientific principles, exemplified by the rules and tables of the Southwell Friendly Institution, &c.," and hope that they may lead to the establishment of a similar association in this country, based upon truly safe and equitable principles. The above society is composed of—

Honorary members, contributing by benefaction £2 each, or by annual subscription at least five shillings. Ladies being also admitted at one-half of the above contribution.

Ordinary members, being the regular contributors or subscribers for the benefits.

The management is entrusted to twenty-four directors, including a patron, a vice-patron, a president, two vice-presidents, eight trustees, and a treasurer, and who are chosen out of the male honorary members. Three directors form the board of management, and meet once a week for the transaction of business. There are besides four stewards, chosen out of the ordinary members, to investigate and ascertain in their behalf the state of the funds and the management of the institution, and to submit for the consideration of the directors and trustees such observations or suggestions as they may deem calculated to promote the welfare of the institution.

An honorary physician, or more, are nominated, if such can be found willing to give advice gratuitously to such members of the institution as may be recommended in writing by the secretary, or by the surgeon in attendance.

One or more surgeons are appointed, who, on the application of any person who may become a candidate for admission, are to ascertain and certify in writing the state of his or her health. They are also to visit every sick member entitled to medical attendance once, at least, in every week, or at such other times as the board or the secretary may deem necessary. They are to record the date of their attendance on the sick paper of every member demanding pay in sickness, and to afford medical attendance, advice, and medicines, as often as needful, to every member entitled thereto.

Voluntary male and female visitors, of whom respectively one-half are honorary and one-half ordinary members, are appointed to visit, from time to time, all sick or infirm members of their own sex, to certify their condition weekly to the secretary, to convey to them, severally, their allowance, and to superintend the application of the same on behalf of every member who may be incapable of so doing. Stipendiary visitors may also be employed, if voluntary ones are not found willing to officiate.

The secretary keeps all the accounts and registers, receives proposals for admission and demands for allowance, collects the monthly contributions and fines, and pays such sums as the members may severally be entitled to claim.

Salaries are only paid to the secretary, the surgeons, the stewards, and to the stipendiary visitors. The institution grants the following benefits:—

1st. An allowance in sickness, denominated full pay, half pay, (sometimes called bed-laying and walking pay,) and quarter pay. The full pay

is due to every member who is confined by sickness or infirmity to his or her bed or bed-chamber, so long as he or she continues unable to walk out of the house, or to perform any work, or to execute any employment, or to exercise in any manner his or her customary occupation. Half-pay is due to every sick or infirm member who is able to walk out of the house, or to perform any work, or to execute any employment; but not so as, during any one week, thereby to earn any sum, or to acquire any emolument equal in amount or value to his or her weekly half pay. Quarter pay is due to every member during any sickness or infirmity which may entitle him or her to weekly pay, and which shall have been certified by the surgeon acting in behalf of the institution to be incurable; but neither the full pay nor the half pay shall be reduced to quarter pay until after the expiration of twenty-six weeks.

Every assurance of weekly pay in sickness entitles the member to receive and require from the surgeon, at the expense of the institution, medical attendance, advice and medicines.

2d. Annuities to commence on arriving at the age of 65 or 70, in weekly payments, for the term of his or her natural life.

3d. The payment of a certain sum on death, not exceeding, however, the sum of £100.

Whoever makes an assurance in sickness, must at the same time assure an annuity after the age of 65 or 70, together with a payment on death; which combination has been devised with an intention of preventing imposition or inequality. Thus, were a sickly person to effect an assurance, what was gained in sickness would be lost in the annuity. On the other hand, should the healthy members receive but a small proportion of the pay in sickness, there is a greater probability of their living to enjoy the annuities. By a similar arrangement, the annuities and the assurances on death reciprocally co-operate, so that, by introducing a system of balanced interests, it seems scarcely possible to defraud the institution, or to preclude the attainment of its benevolent objects.

The members are divided into ten classes, and every person may select the class to which he or she is desirous of belonging, but not so as to assure any weekly allowance in sickness, unless it shall appear that the amount of his or her weekly earnings or emolument, calculated or estimated upon an average for the year preceding his or her admission, has been equal to thrice the amount of the weekly half pay of the class chosen. The table of the first class is assumed as unity; the tables of the higher classes are found by multiplying their numbers with the amount of contributions and benefits of the first class. In the second class, the contributions and allowances are therefore double; in the third class, three times those of the first class, &c., &c., leaving it optional to every one to select the class which best answers his or her means or wishes.

The contributions may be paid monthly until the period when the annuity commences, when they entirely cease, though the benefits still continue, or they may be paid in a single sum, which exonerates the member from any further payments. The institution grants likewise, unconnected with an allowance in sickness—

4th. Annuities, to commence at the age of 60, not exceeding, however, ten shillings a week; but another annuity of additional ten shillings may be added, to commence at 65; and still another of ten shillings, to commence at 70, making in all thirty shillings a week.

5th. A life assurance not exceeding £500 on any one life.

6th. Endowments for children of from £6 to £30, payable on their arriving at the age of 14 or 21.

If desired, they may be made payable annually, from the age of 14 to 21, in the proportion of £1 a year for every £7, payable at 21.

7th. Medical attendance, advice and medicines, may be secured without an assurance in sickness, by agreeing to pay a certain single or annual contribution.

The work from which these extracts are taken, contains a very detailed explanation of the management, of the simplest method for keeping the accounts, and for ascertaining periodically the situation and progress of the society, with the various forms of applications, certificates, &c., with the aid of which no difficulty would be experienced in forming a society in this country. The tables therein contained, and those found in Ansell's Treatise on Friendly Societies, furnish the rules and materials for the computation of rates more suitable for this country, the higher value of money permitting a reform in the same.

The following table will show the contributions required by the Southwell Friendly Society, payable in a single sum or in monthly payments until the age of 65, for a weekly allowance of two shillings, (sterling,) full pay, and one shilling, half pay in sickness; an annuity of two shillings a week, after the age of 65, and the payment of £2 on death. Class No. I.

	15.	25.	30.	35.	40.	45.	50.
In sickness.....	£1 18 9	£2 2 6	£2 4 8	£2 6 1	£2 8 0	£2 9 5	£2 11 9
After 65.....	1 3 4	1 17 1	2 7 7	3 1 6	4 0 3	5 6 4	7 3 2
On death.....	0 14 4	0 16 5	0 17 5	0 18 7	0 19 10	1 1 3	1 2 9
Total single pay't.	£3 16 5	£4 16 0	£5 9 8	£6 6 2	£7 8 1	£8 17 0	£10 17 8
In sickness.....	£0 0 2	0 0 2½	0 0 2¾	0 0 3¼	0 0 3½	0 0 4¼	0 0 5½
After 65.....	0 0 1¼	0 0 2¼	0 0 3¼	0 0 4½	0 0 6½	0 0 9¾	0 1 3¾
On death.....	0 0 1	0 0 1¼	0 0 1¼	0 0 1½	0 0 1¾	0 0 2	0 0 2½
Total monthly.....	£0 0 4¼	0 0 6	0 0 7¼	0 0 9¼	0 0 11¾	0 1 4	0 1 11¾

It will be seen that a man aged 35 secures the above benefits by paying £6 6s. 2d. in one sum, without further payments, or by paying monthly 9¼ pence until he reaches the age of 65, when all contributions cease, though he is still entitled to the benefits.

At the above rates, reduced into federal money, a weekly allowance of $5 full pay, or $2½ half pay in sickness, a weekly annuity of $5 after the age of 65, and a payment of $100 on death, would cost—

	20.	30.	40.	50.
In sickness.....	$101 74	$111 57	$119 86	$129 21
After 65.....	145 63	237 77	401 23	715 68
On death.....	38 64	43 54	49 61	56 84
Total in a single sum.....	$286 01	$392 88	$570 70	$901 73
In sickness.....	$0 50	$0 61	$0 78	$1 13
After 65.....	0 71	1 32	2 67	6 54
On death.....	0 19	0 24	0 33	0 52
Total monthly.....	$1 40	$2 17	$3 78	$8 19

In the above calculations, the interest is computed at 3½ per cent only;

at 5 per cent, which we could safely allow in this country, the above rates would be materially reduced, but to what extent, I have not yet ascertained, it being an undertaking of great labor to calculate the values of annuities, though I often intended to prepare such a table, which might prove an interesting guide to our numerous Odd Fellow, Temperance, and other benevolent associations, and prevent the danger of doing injustice to themselves, or of jeopardizing their existence.

Many might think that the management of such a society would be very difficult, and involve much labor; but referring to Mr. Becher's work, I find that there is only one meeting in every year of the honorary members, one every month of the trustees, and one a week of the board of directors.

Most and nearly all the work devolves upon the secretary, who keeps the correspondence and all the books, which are, however, much more simple than we might perhaps imagine. He, with the assistance of the stewards, has to attend one afternoon of each week to receive applications for admission, claims for allowances, and the monthly contributions.

There being scarcely any expenses—no rents for handsome offices, and heavy salaries to officers, no per centage need be added to the actual cost of the granted benefits; the poor and industrious members receive them, therefore, not only on the very lowest terms, but also in easy instalments. Females, who cannot become members of secret societies, and who would dislike to apply at our health assurance offices, are thus enabled to participate likewise in these advantages.

The subject certainly deserves the full attention of our philanthropists, and should it receive it, as I confidently hope it will, it would afford me the greatest satisfaction to lend my gratuitous aid, and to furnish further details and calculations, which it would be superfluous to give in this communication, and encroach upon the limited space allotted in this valuable Magazine.

J. F. E.

Art. V.—THE NEW YORK BANK BILL OF THE SESSION OF 1848.

It was a remark of the celebrated and illustrious George Canning, that in contradiction of the popular opinion, if there were any two things especially that he distrusted, it was facts and figures. No one can study with attention the history of the banking system of the State of New York, without conceding to Canning's maxim more of wisdom than would at first appear its due. He will find an array of statistics, supported by grave and elaborate calculations, careful deductions, and innumerable problems, all displayed by the advocate of peculiar systems of banking; and to these arithmetical displays, the testimony of valuable names added, and each in its day believed to be the result, the great result, desired, and for which others had in vain long labored. Yet time and experience, that go through this world of ours, discovering the truth where men had forgotten or omitted to search for it, and proving the futility of the clearest calculations, have demonstrated often that what was best supported by the statistics of the past, failed first for the future; and that the first break in financial machinery was frequently in the very place on which a wealth

of guard and restraint, check and balance, rule and regulation, had been lavished.

On no theme has there been so much of theory poured out, as on the banking system. It has been the study of the merchant and the legitimate banker, and in their hands it has, as business usually does in the guidance of business men, prospered. It has been the nucleus of a library of essays, all striving to exhibit their profound knowledge on the question, by going all around it—everywhere but *at* it. Chiefly it has occupied the attention of legislative wisdom, and when committed, as it has often been, to the care of the men who knew but little of the practical operations of banking, it created plans and projects which would have crushed or crippled the very business which it was designed they should benefit.

All this time it has been forgotten that in all business operations, simplicity is a cherished feature, and that whatever is complex, is a departure from the right; and for years it has been proclaimed as an axiom, that the business of banking was one clothed in mystery—a very delicate machine, in which much of lever and pinion on wheel was necessary, and that no rude hand must be laid on the structure.

The State of New York took banking in "the natural way." It did not come in in a storm of experiment, but monied institutions were here and there organized, where the wants of the business people required. In the great city, it, of course, first developed itself, because there, amid the perplexing and complex turns of the wheel of commerce, it was first manifested that money needed a place of bargain and sale as necessarily as any of the great staples of trade. A regular and quiet institution that was which first exhibited to the citizens of the metropolis the order and method of a banking-house. It had some customs which would now be considered quaint indeed, and rather ludicrous, but which then seemed to be only an exhibition of the obliging character of the new "fiscal agent." It was a pleasant sight to see the old porter of the bank taking round each note, as it became due, to the parties liable, so that, instead of, as now, hurrying to and through Wall-street, before the fatal hour of three shall have struck its death blow to credit, the note was sure to be brought home, literally, perhaps, a more welcome visitor than now.

A similar simplicity of manner pervaded the customs of the old Bank of Albany, which was for so long a frontier institution—an outpost of finance. Their business was always peaceably done, and no rash ventures were made. There was a caution as to credit, and a horror as to debt. It watched its own notes quite as warily as those of its customers, and was, in all the community, a synonyme for prudence. The men associated with these two pioneer banks lingered long among us, as if the business had been a pleasant one, and conducive to longevity. The writer of this sketch held an interesting interview with one of these old gentlemen but a few months since, when he pointed out, in State-street, the locality where he had seen a treaty held with some of the Iroquois by the *colonial* governor, prior to the Revolution. The life of any man is short, yet the existence of these early financiers has been long enough to witness successive mutations in systems of banking, each in their commencement heralded as the very surest and safest; certain remedies for all the ills to which credit and currency are heirs, and each in turn inspected, attacked, and denounced—the adulation of the morning changed in the evening to invection.

It has been a misfortune in the history of the banking system in this State, that an *ad captandum* name has generally been fixed upon the projects submitted to the action of the community, so that the appellation has sometimes been oftener a reliance than the intrinsic worth of the policy. A *Safety* Fund, a *Free* Banking Law, pronounce their own eulogy in their designation, and anticipate favor, rather than earn it.

The rule to which the community agree in most of the departments of life, is departed from too often, in reference to banks. Excellent men—good lawyers, it may be, or skilful physicians—admirable artisans, sagacious politicians, have been the compilers, devisers, inventors of a bank law, and of statutes governing and regulating the transactions with the currency. The legislature has not always chosen from among its number those best qualified by experience, by practical knowledge, to judge of what system of banking would be surest and safest. It is from the merchant, whose interests are identified with a sound and authentic circulation—the banker, who has passed a lifetime in finance as a business, that the best suggestions and views must necessarily be obtained; and stating this, is only bringing the laws governing money to the same guidance which would be given to any other science or profession. The wants of business, and only those, make the necessity for a bank; and business men know best what is likely to do all that ought to be done, and to do that well.

It is not for me to undertake the difficult task of a decision, as to what system of banking for our State is best. The judgment of the people through their representatives will undoubtedly be a wise one; at least, it is most comfortable to indulge such a hope. It is fortunate that the commercial interests of New York are so firm founded and durable that not even a succession of novelties in finance can seriously injure them.

We are approaching a crisis or an era in our banking, for the provisions of the constitution are paramount, and with the new rule compliance must be made.

The subject was examined in the last session of the legislature by a practical banker, who was at the head of the Committee on Banks. He had for a series of years managed an institution, and with results that demonstrated the efficiency of the laborer. His bank had furnished a currency always sound, and ready to be rendered into the precious metals. The community in which the bank was situated, its customers and its stockholders, bore willing witness to the good sense and good judgment which had characterized its conduct. Mr. Ayrault discussed the subjects committed by the Senate to his care with ready directness of purpose, regarding banking as a business interest, in which every citizen could look without machinery or mystery. The doctrine was well stated in the Report:—

"On no question before the public judgment, has there been greater errors of extremes of opinion, so far apart, and so strenuously advocated, that the true theory, the sound decision, has been often among the things most difficult to be attained. It has been vehemently asserted, that all banking was a monopoly, given to the few against the rights of the many, and that that government alone had advanced far in the progress of preservation of the happiness and prosperity of the people, which most discouraged and opposed this pursuit. And by the side of this error, grew up its antagonist, holding a doctrine utterly the reverse, and contending for the giving and the granting of privileges and exceptions, and fran-

chises, inconsistent with that equality and simplicity which is essential in the institutions under which it is our happiness to live.

"Banks and banking are conveniences of business which are to be regulated by the well established common sense practical rules which govern an honest intercourse among men in all the pursuits of trade, and commerce, and labor; that there is to be neither mystery or privilege about them, but that their duties are just as clearly defined and definable as those of any other business in life, and that, when acting within these regulated limits, they are valuable instruments of the movements of society; but that, whenever more than this is asked or attempted, and they are thrown into the combat of political or personal strife, they become obnoxious, and are worthy of the disapprobation of the people, expressed through their laws."

This is such a thorough view of the subject as will meet, and did meet, a response in the minds of the people, for it was new language in the legislative halls—indeed, it was breaking away at once from the confused and entangled methods of other days, and it proved that progress was as much an attribute of financial knowledge, as of political or scientific. The very best kind of progress is that which is simple and substantial.

The bill which accompanied the report, and which was examined and debated by the Senate for several days, was intended, in an enlightened good faith, to present to the capital of the State, already engaged, or willing to embark in the business of banking, the means so to do with sufficient facilities for all just and honorable enterprises, but guarded doubly strong against being made a vehicle of fraud or dishonesty.

Its provisions looked to a valid payment of all the capital—not in the representative of currency, but in money; and, indeed, a redeemable issue based upon a cash capital, was the doctrine of the bill. It gave to the officer designated by the State, a control and a supervision over the business of each institution, and by a new and wholesome feature, provided for examinations by disinterested parties, residents of the vicinity of the bank, and likely to be acquainted with all the facts necessary to form a just judgment of its real condition. A proper reserve fund was directed to be left with the Comptroller; and it could be readily demonstrated that, by the provisions of Mr. Ayrault's bill, it would have been impossible, within the range of ordinary contingencies, for a disastrous failure to have taken place, at least so as to affect the bill holder. The personal guaranty of the constitution was recognized and embodied, and the utmost care taken to identify the bill with all the principles which the experience of many years have shown to be reliable in the important department of finance.

The charters of many of our banks are, by the expiration of the time allotted to them, ceasing to exist, and the capital employed must be withdrawn, or forced into other channels. The establishment of a judicious system was demanded by the circumstances of the times; and whatever may be the diversity of opinion entertained of the plan thus proposed, its ability will not be questioned, nor its integrity. Of this last, the character of its author is a sufficient guaranty. It failed to be successful, it is true, but such is often the fate of the best prepared and wisest matured projects. If a better can be framed, it will be welcomed with satisfaction, for the only purpose that has been sought, is the good of the community—to give to banking capital all proper facilities for doing business, and, at the same time, holding it strictly to the accountability of the most rigid and punctual discharge of all its obligations.

No man but a practical banker can devise a practical bill; for it is

safest and surest to place the moulding of the great measures of finance in the hands of those who have made it their business to acquaint themselves with all the mutations, the vicissitudes, the different phases of the supply of and demand for money. None theorize so extensively abou proper restraints and guards, as those who would be puzzled to devise any worth imposing; and yet, not seldom has the currency of the country been the last problem given to the solution of those who had made it the business of their lives to discover what that system is, which is at once active and safe.

Undoubtedly some banking plan will be settled upon as the financial regulation of our State. It will be best received, if based upon the principles of the every-day transactions among business men. Commerce and trade have, of necessity, their rules, and no devising will be found as worthy of confidence as that which shall meet the cordial approbation of the business community.

Note.—The necessity for some plan for the establishment of banks of capital, is seen in the steady diminution of the present institutions. There expire in 1849, 1; in 1850, 5; in 1851, 2; 1853, 10; 1854, none; 1855, 10; 1856, 2; 1857, 3; 1858, 3; 1859, 3; 1860, 3; 1861, 2; 1862, 7; 1863, 7; 1864, 5; 1865, 3; 1866, 12.

Art. VI.—COMMERCIAL CITIES OF EUROPE.

NUMBER XI.

DUNKIRK, FRANCE.

SITUATION—HARBOR AND PORT—COMMERCE—COD, WHALE, AND HERRING FISHERY—DOMESTIC TRADE—FOREIGN TRADE—ENVIRONS—INSURANCE, ETC.

Dunkirk, an important seaport of France, lies upon the Dover Straits, in lat. 51° 2′ 9″ north, longitude 2′ 22″ east from Paris. Its distance from Paris is 68 leagues. Its population in 1836 was 25,000. Dunkirk is the nearest French seaport to London, being but 42 leagues distant from that city.

Harbor and Port. The harbor of Dunkirk is a circular basin, the outer edge of which is formed by a belt of sand-banks. There being but two narrow passages through this belt, one to the east and the other to the west, it furnishes, during war, a defence against hostile cruisers.

Since 1821, much has been done for the improvement of this harbor. Among other works, we may mention the reconstruction of the dam of Bergue, and the formation of a basin with a sluice, intended to pierce the bar. In 1836, additional improvements were made, the object of which was to clear a channel for the entrance of deeply laden vessels.

Several canals, with numerous branches, terminate at Dunkirk, and give that place a ready communication with Belgium and with Paris, and many manufacturing towns of the interior, such as Arras, Lille, Valenciennes, St. Quentin, &c., &c.

In the harbor is a bed of English oysters, like that at Ostend, and furnished from the same place. These are sent to all parts of France, and

have obtained possession of many of the markets formerly supplied by Ostend.

Commerce. If the capital of Dunkirk was at all proportioned to the skill, enterprise, and hardihood of its people, its commerce would attain the highest prosperity. But, at present, almost all the business of the city is conducted on account of merchants residing elsewhere.

About 600 cargoes (amounting to some 40,000 tons) of coal, from the mines of Anzin, Mons, and Fresne, are annually exported from this place. The products of the cod fishery also form an important article of export. A great number of cargoes are sent to Caen, Havre, Bordeaux, Marseilles, and especially to Rouen, whence they are forwarded to Paris and places beyond.

Cod, Whale, and Herring Fishery. The cod fishery is very advantageous to Dunkirk. It employs from 12 to 1500 sailors, brings large returns to fitters, and enriches the city by the encouragement it affords to mechanical industry.

About 100 vessels are engaged in this business. They are fitted out in February, and return in September or October. Their fishing ground is off the north-western shores of the Atlantic. The salt used in curing the cod is brought from St. Ubes. As soon as the fish are taken, they are cleaned and packed in casks. Their livers produce fish oil. The oil obtained from other parts of the intestines is used in tanning leather. The annual product of this fishery is about 4,000,000 kilograms of cod, valued at 2,000,000 francs.

The whale fishery, which in 1790 was carried on from this place with great success, was, for a long time, entirely abandoned. In 1832 it was resumed, and during the following four years, eight ships were fitted out.

A great obstacle to the success of this business, is the difficulty of obtaining experienced captains, and skilful and intrepid sailors. Unfortunately the government bounties have been given to those shippers who employ native seamen, instead of to those who obtain the services of skilful foreigners, such as the Scotch and Americans. The whale fishery is carried on both in the Northern and Southern seas. The northern voyages are only six or seven months in length; the southern are usually about two years.

In 1790, seventy vessels were sent from Dunkirk on the herring fishery; but at present, the business is almost abandoned. The ports of Dieppe and Boulogne have outstripped all their competitors.

Domestic Trade. Dunkirk sends to Havre gin and glass of its own manufacture, chicory, flax, oil, linen, &c. To Caen it sends coal, codfish, oil and seed-oil cakes. To Brest and Cherbourg, timber for ship building, gin, chicory, starch, &c. To Saint Malo, flax and flax-seed.

Several cargoes of tobacco are annually shipped by the government agents to Havre, Morlaix, and Bordeaux. Fifteen or twenty cargoes of flax and other articles, such as chicory, lard, oil, &c., are sent to Bayonne every year; from which place two or three loads of tar, pitch, and resin, are received in return. Dunkirk receives a large quantity of wine from Bordeaux and its neighborhood, and competes with Rouen in the export of champagne to Russia and Prussia. Its canals, communicating with the interior of Belgium, give it great advantages as a place of export; especially, because the charges for pilotage and entry are very heavy in the ports of Belgium. Dunkirk also receives from Bordeaux 2

or 300 casks of brandy and spirits, besides coffee, sugar, cocoa, pepper, cloves, raisins, prunes, Campeachy wood, juniper berries, sumac, rice, almonds, &c. From Marennes, and the islands of Oleron and Ré, Dunkirk receives about 150 cargoes of salt; and from Havre considerable quantities of exotic wood and colonial products.

To Marseilles, this port ships annually about eighty cargoes of linseed and other seed oil, the manufacture of Lille and its environs. In return, there come nearly thirty loads of soap, almonds, wood, liquorice, olive oil, sumac, &c. Its shipments to Cette consist mostly of grain and flour, and the annual returns from that place are about thirty cargoes of the wine of Provence and Languedoc, some Spanish and Italian wine, and a considerable quantity of the brandy and spirits of the neighborhood.

The wheat produced in the neighborhood of Dunkirk and Lille is, in color and weight, the finest in France, and is always in great demand. Of late, large quantities have been shipped to the French ports on the Atlantic and the Mediterranean.

Foreign Trade. The commerce of Dunkirk with foreign countries is not less active than its domestic trade. It sends to England the wines of Burgundy, Champagne, and Bordeaux, flax, tow, oil-cakes, and many small cargoes of apples, purchased by the English in the markets of Bergues, Bourbourg, &c. It receives from that country, in return, iron in pigs and bars, lead, grind-stones, mill-stones, litharge, lamp-black, cotton, sulphur, colonial products, cheese, wool, cattle, cow and calf skins, &c. Considerable contraband trade is also carried on with England in silks, brandy, gin, &c.

From Norway, Dunkirk imports great quantities of timber of all kinds; from Russia, linseed, hemp, tallow, tar, pitch, potash, &c.; from Portugal, salt, oranges, citrons, figs, raisins, and other fruits; from Tuscany, some cargoes of potash; from the United States, tobacco, potash, cotton and dye woods; from Martinique, sugar, coffee, cocoa, Campeachy wood, &c.

To Martinique and Gaudaloupe, Dunkirk exports gin, brandy, bottles and demijohns, peas, beans, potatoes, the products manufactured in the north of France, such as cottons, linens, lawns and laces, perfumery, furs, articles of dress, such as habits, robes and chemises, nails, iron ware, cables, small cord, bricks, tiles, candles, brushes, hemp and flax.

A regular line of packets runs between Dunkirk and Hull. The port has also three lines of steamboats, running to Havre, Hamburg, and Rotterdam.

Environs. In the environs of Dunkirk there are some manufactories, such as gin-distilleries, sugar-factories, glass-houses, (producing bottles and demijohns to be exported to the colonies,) and also a white-lead factory and a ship-yard, which is in constant activity. But, to a stranger, the most striking feature of the surrounding country is the perfection to which the cultivation of the soil is carried. The chief agricultural products are grain and the red beet. There are also extensive pasture lands in the neighborhood, supplying food to an immense number of cattle.

Insurance, etc. It is difficult to effect marine insurance at this place. But few of the merchants take risks, and the business is left to the agents of the Antwerp, Havre, and Paris companies. The number of vessels belonging to the port is about 200. An entrepôt of prohibited merchandise is established here.

Art. VII.—STATISTICAL VIEW OF THE AMERICAN WHALE FISHERY.*

THE whaling fleet of the United States consisted, on the 1st of January, 1849, of 580 ships and barks, 20 brigs, and 13 schooners, with a total tonnage of 195,598 tons, owned in the following places :—

	Ships & barks.	Brigs.	Schooners.	Whole No. of vessels.	Tons.
New Bedford	246	2	1	249	80,660
Nantucket	67	1	1	69	23,477
New London	48	1	4	53	17,880
Fairhaven	49	.	.	49	15,805
Sag Harbor	41	.	.	41	14,649
Warren, R. I.	20	.	.	20	6,558
Stonington	21	.	.	21	6,414
Mystic	15	.	1	16	4,897
Cold Spring	8	.	.	8	3,315
Greenport	10	.	.	10	3,059
Westport	10	5	.	15	2,804
Edgartown	6	2	.	8	2,408
Newport	6	.	.	6	1,984
Mattapoisett	6	4	.	10	1,880
Fall River	5	.	.	5	1,615
Providence	4	.	.	4	1,459
Provincetown	1	3	6	10	1,260
Falmouth	3	.	.	3	1,106
Holmes' Hole	3	.	.	3	949
Lynn	2	.	.	2	720
Bridgeport	2	.	.	2	709
Salem	1	.	.	1	398
Wareham	1	.	.	1	374
Sippican	1	.	.	1	256
New Suffolk	1	.	.	1	227
Bristol	1	.	.	1	222
Plymouth	1	.	.	1	175
Somerset	1	.	.	1	137
Dartmouth	.	1	.	1	111
Yarmouth	.	1	.	1	90
Total	580	20	13	613	195,598
Average tonnage				tons	319

The ship Hope, of New Bedford, sailed in 1843, last reported ashore at New Zealand, is not included in this list.

The largest vessel in this fleet is the ship South America, of Providence, 616 tons, and the smallest the schooner Atlas, of New London, 81 tons.

The time of sailing of these vessels is as follows :—

	Ships & Barks.	Brigs.	Schooners.	Total.
Sailed in 1844	11	...	.	11
" 1845	81	...	1	82
" 1846	121	1	1	123
" 1847	165	2	3	170
" 1848	159	10	3	172
In port	43	7	5	55
Total	580	20	13	613

* For an elaborate account of the American Whale Fishery, embracing a history of its rise and progress, see Merchants' Magazine for November, 1840, Vol. III., pp. 361 to 394

The vessel now at sea out the greatest length of time is the ship Barclay, of New Bedford, sailed 20th July, 1844.

The ship Alexander, of Sag Harbor, arrived 19th July, 1848, about four years ten months and four days, perhaps the longest voyage ever made by an American ship.

Of the whole number of vessels at sea (558), about one-half are engaged chiefly in the sperm whale fishery, the other half making the right whale the main object of their pursuit; the vessels of larger tonnage being generally right whalers, and the smaller, including the brigs and schooners, in the sperm fishery.

About 35 brigs, schooners, and small barks are employed in the sperm whale fishery in the North and South Atlantic; about 85 ships and barks in the South Atlantic and Indian Ocean for sperm and right whales; and most of the remainder in the Pacific—those for right whales cruising on the coasts of Asia and America from 1st March to 1st October each year in latitude 35° to 60° N.; the sperm whalers cruising on the line, and coasts of Peru, Japan, and New Zealand during the whole year.

The following table shows the number of vessels employed in the American whale fishery at different dates during the last twenty years:—

	Ships & Barks.	Brigs.	Schooners.	Total.
January 1, 1829	184	17	2	203
" 1834	414	7	...	....
" 1843	589	55	14	658
" 1846	680	34	22	736
" 1849	580	20	13	613

It will be seen from this table, that while the increase has been very great since 1st January, 1829, yet the last three years have shown a *decrease* of 123 vessels, or 17 per cent, being a greater reduction than the increase of the three previous years. From the tables at the close of this article, it will be seen that the ships arriving with whale oil in the years 1843, 1844, and 1845 were absent but little more than two years, and averaged 2,058 barrels whale oil, with an average price of 34½ cents; while the right whale ships arriving in 1846, 1847, and 1848 were absent an average of thirty-one months, and obtained only 2,066 barrels of whale oil, with an average price of 33 cents—an addition of one-fourth to the time, with no increase of quantity and with lower prices.

The laws of *profit* and *loss*, which invariably govern all trade, have caused this great reduction in the whaling fleet; and unless the price of whale oil should materially advance, or new and undisturbed *grounds* (as the waters frequented by whales are technically called) be found, which it seems can be hardly hoped for, all oceans, seas, and bays having been visited, the number of vessels in this branch of the whaling business will probably continue to decrease. Those well qualified by experience and observation to judge, believe that all the vessels employed in the right whale fishery the past three years have not, in the aggregate, paid to their owners 6 per cent interest, without regard to profit, which, from the great length of time, hazard, and risk, ought certainly to be looked for.

The diminution in the whaling fleet here spoken of has fallen on those vessels engaged in the capture of the right whale, the prices obtained for sperm oil affording fairer remuneration for the additional time now required for a voyage. The right whale ships formerly procured their cargoes entirely in the South Atlantic Ocean, on the coast of Brazil, where the first

vessels were sent about 1774, and were absent from nine to twelve months. The whole amount of whale oil then taken was very small. In the year 1826, the whole number of vessels sailed from the United States for this fishery was 23, viz :—New Bedford, 13 ships ; Sag Harbor, 6 ; New London, 2 ; Vineyard, 1 ; New York, 1 ; and the whole import of whale oil in 1828, twenty years since, was but 46,065 barrels, whalebone 417,966 pounds—whale oil being worth about 26 cents, and bone 37½ cents.

About the years 1829 and 1830 the right whalers began to extend their cruises eastward, and found abundance of whales in the vicinity of the Island of Tristan d'Acunha. Having never been disturbed, the whales here were tame and easily taken ; and many ships returned from this ground in 1831 and 1832, absent from seven to nine months, with full fares, and the old cruises on the Brazil banks were abandoned. As the whales grew shy and were killed off in the South Atlantic, the ships worked east of the Cape of Good Hope, in the Indian Ocean, off the South Coast of New Holland, and finally at New Zealand, around which last island was the favorite cruising ground for right whalers from 1835 to 1840. Here, too, the untiring energy of the whalemen frightened and dispersed the fish which his skilful hands failed to capture, and new and undisturbed fields were to be sought out. About this time right whales of a large size were found in the North Pacific Ocean, and in the year 1839 the ships Elbe and Beaver, of Poughkeepsie and Hudson, took 2,800 barrels of whale oil off the north-west coast of America. Gradually, as the ships resorted to this ground, they cruised west towards the coast of Kamtschatka, and found whales very abundant in the seas on the east coast of Asia.

The following table shows the amount of whale oil taken in north latitude in the Pacific Ocean.

Years.	Ships.	Av. bbls.	Bbls.	Years.	Ships.	Av. bbls.	Bbls.
1839.....	2	1,400	2,800	1844.....	170	1,528	259,470
1840.....	3	587	1,760	1845.....	263	953	250,600
1841.....	20	1,412	28,200	1846.....	292	869	253,800
1842.....	29	1,627	47,200	1847.....	177	1,055	186,650
1843.....	108	1,349	146,800	1848.....	150	(Estimated.)	

Reports at this date (January 10) have been received from only 8 ships which had left the coast in 1848, and they had only taken an average of 704 barrels.

In the year 1846, an adventure was started from New London for the capture of the right whale in Davis Straits, where the English have whaled for 200 years, but which had heretofore remained undisturbed by Yankee skill and daring since the Revolution ; and it was argued that, as the Americans had driven the English from the South Sea fishery, they might successfully compete with them among the icebergs of the north.

The first fitting and preparation of a vessel for the ice whaling is attended with much expense not required for any other voyage. The bottom of the ship must be double covered with oak plank, and her bows very strongly fortified, without and within, to enable her to force her way through the ice and resist its pressure. The ship McLellan was purchased, fitted, and sailed for Davis Straits April 8, 1846 ; since which time she has made three voyages averaging 6 months and 20 days, with an average cargo of 612 barrels whale oil. The success of this ship has not been sufficient as yet to warrant the sending of any additional vessels to the ice, but the McLellan is fitting for another voyage thither.

The inhabitants of the Island of Nantucket were the first persons to engage extensively in the whale fishery, and as early as the year 1690, they made whaling a profitable business, discovering the whale from a look-out on shore, capturing him in boats, returning to the shore with the carcass to extract the oil from the blubber. As the whales grew scarce around the island, they pushed off into the ocean in small vessels, and in the year 1748 they had 60 sail, from 50 to 75 tons, and caught 11,250 barrels of oil. The first sperm whale caught at Nantucket, and probably by Americans, was taken by the schooner Hussey about the year 1712.

The ship Beaver, of 240 tons, sailed from Nantucket in the year 1791 for the coast of Peru, and was the first American whaling vessel which doubled Cape Horn. She cost $10,200 fitted for sea, was absent 17 months, and brought home 1,000 barrels sperm oil, and 250 barrels whale oil.

IMPORTED AT NANTUCKET IN

Years.	Sperm oil. *Bbls.*	Whale oil. *Bbls.*	Years.	Sperm oil. *Bbls.*	Whale oil. *Bbls.*
1808	7,707	10,503	1828	43,174	1,033
1818	14,864	13,426	1848	22,362	7,409

Although the enterprising inhabitants of Nantucket were the first to engage extensively in the whale fishery, yet they have not greatly increased their number of vessels in thirty years; and while New Bedford and other places have added a large number of ships, the good people of the island seem to have been satisfied to hold on the even tenor of their way.

	Ships & Barks.	Brigs.	Schooners.
Nantucket owned, January 1, 1819	57	1	.
" " 1829	60	1	.
" " 1849	67	1	1

Showing an increase in twenty years of only seven ships and one schooner.

New Bedford, which stood but little ahead of Nantucket twenty years ago, has made very large additions, and now owns nearly half the whaling tonnage of the United States.

	Ships & Barks.	Brigs.	Schooners.
New Bedford owned, January 1, 1829	67	8	1
" " " 1849	246	2	1

The following table shows the import of sperm oil into the United States, with the average price, for the last thirty-four years, since 1815:—

		Bbls.			Bbls.
1815	$1 40	2,186	1832	$0 85	71,435
1816	1 12	7,343	1833	0 85	90,000
1817	0 72	31,603	1834	0 72	121,700
1818	0 90	17,102	1835	0 84	172,682
1819	0 83	22,716	1836	0 89	128,685
1820	0 92	32,127	1837	0 82	181,724
1821	0 68	43,365	1838	0 86	125,977
1822	0 65	42,839	1839	1 05	142,483
1823	0 43	86,725	1840	1 03	158,431
1824	0 45	92,475	1841	0 94	157,413
1825	0 71	60,052	1842	0 73	165,637
1826	0 75	33,000	1843	0 63	166,985
1827	0 73	92,865	1844	0 90	139,481
1828	0 62	73,000	1845	0 88	157,603
1829	0 61	80,000	1846	0 88	95,219
1830	0 66	106,201	1847	1 01	120,753
1831	0 71	106,436	1848	1 00	107,876

Largest import in twenty years in 1837, 181,724 barrels; highest price in 1839, $1 05.

A table showing the import of whale oil since 1828, and the average price since 1840:—

		Bbls.			Bbls.
1828	.....	46,065	1839	.....	227,816
1829	.....	64,039	1840	$0 30½	208,688
1830	.....	86,294	1841	0 31¾	205,019
1831	.....	113,948	1842	0 33¾	161,041
1832	.....	179,244	1843	0 34½	206,727
1833	.....	159,166	1844	0 36½	261,245
1834	.....	122,292	1845	0 32¾	272,186
1835	.....	125,100	1846	0 33	207,481
1836	$0 36	131,157	1847	0 36	313,150
1837	0 33	219,138	1848	0 33	280,656
1838	0 32	225,000			

Largest import in 1847.

IMPORT OF WHALEBONE SINCE 1844.

1844	lbs.	2,532,000	1847	lbs. 3,341,000
1845		3,167,000	1848	2,023,000
1846		2,276,000		

It is believed that no accurate record was kept of the import of whalebone for many years previous to 1844, but it is safe to estimate that a right whale will yield at least 800 pounds of bone to 100 barrels of oil. The price of this article has fluctuated from 9 cents in 1821 and 1822, to 55 and 60 cents in 1844.

The following statistical tables, showing the average time and success of the whaling vessels for the past seven years, are arranged from the New Bedford *Shipping List*:—

SPERM WHALERS.

SHIPS AND BARKS FROM THE PACIFIC AND INDIAN OCEANS.

Years.	Ships arrived.	Av. time absent. *Months.*	*Days.*	Sperm oil. *Bbls.*	Whale oil. *Bbls.*
1842	55	41	8	1,973	135
1843	70	41	13	1,641	124
1844	69	43	...	1,419	293
1845	91	43	21	1,291	387
1846	42	41	6	1,350	280
1847	52	45	12	1,505	219
1848	52	41	19	1,292	192

It will be seen from this table that while the time of the ships arriving the past year was about the same as in 1843, five years since, yet the quantity of oil was diminished nearly one-fourth.

ATLANTIC SPERM FISHERY.

IN SMALL BARKS, BRIGS, AND SCHOONERS.

Years.	Vessels arrived.	Av. time absent. *Months.*	*Days.*	Sperm oil. *Bbls.*	Whale oil. *Bbls.*
1842	65	13	28	280	12
1843	55	14	20	288	25
1844	42	12	...	248	38
1845	43	13	7	238	76
1846	48	14	7	259	14
1847	34	15	9	228	42
1848	31	16	21	303	18

The vessels employed in this fishery have diminished more than one-half in the past seven years.

RIGHT WHALERS.

SHIPS AND BARKS WHICH CRUISE MOST OF THE TIME FOR RIGHT WHALE OIL, AND DO NOT RETURN THE NEXT YEAR AFTER THEY SAIL.

Years.	Ships arrived.	Av. time absent. *Months.*	*Days.*	Sperm oil. *Bbls.*	Whale oil. *Bbls.*
1842	74	24	15	1,722	422
1843	90	25	10	1,937	311
1844	112	25	9	2,059	248
1845	101	24	...	2,180	196
1846	94	30	2	2,034	225
1847	150	31	7	1,978	195
1848	122	33	2	2,187	222

STOCKS OF WHALE AND SPERM OIL ON HAND.

	Sperm oil. *Bbls.*	Whale oil. *Bbls.*	Whalebone. *Lbs.*
January 1, 1848	5,690	29,170	921,500
" 1849	9,590	20,600	994,600

MERCANTILE LAW CASES.

BARBOUR'S CASES IN THE SUPREME COURT OF THE STATE OF NEW YORK.*

THIS is the first volume of New York Supreme Court Reports that ever contained cases in Equity, and Mr. Barbour has entered upon the new era of State reporting, and commenced the series of reports under the new constitution in an admirable manner. The present volume is got up in very handsome style, and the work of the reporter, in stating the facts, giving the arguments of counsel and the opinions of the court, fully and ably done.

In his preface, Mr. Barbour briefly sketches the changes in the judiciary of the State lately brought about by the abolition of the Court of Chancery, the merging of equity jurisdiction into that of the Supreme Court, the increase of the number of Supreme Court judges from three to thirty-two, and the division of the State into judicial districts, with four judges in each, and the consequent breaking up of the State (according to those disposed to take the least favorable view of the change) into eight local courts, instead of one really Supreme Court.

One of the difficulties arising from this supposed defect in the new system, is obviated by the course which we understand Mr. Barbour has pursued in preparing this volume. All the decisions made during the period of this volume, (September to December, 1847,) are not given; but the reporter was furnished by the judges with such decisions as seemed most important, and harmonized with each other. Unless this course were pursued, the profession and the public might be favored with the edifying spectacle of the same volume of the reports of one and the same court, containing decisions directly overruling the one, the other; or if such a thing cannot be supposed of tribunals, co-ordinate and equal decisions neutralizing and cancelling each other.

The great feature of the new judiciary system is its elective character. The division of the State into local districts, (admitting such to be the effect of this system,) is comparatively of little moment. Such, however, is not, in fact, the effect of the new arrangement; or rather, the system is so carried out as to prevent this localizing effect. The new code of New York requires the governor, in designating the judges to hold the courts throughout the State, to so assign them, that "not more than one-half, nor less than one-fourth, of the courts to

* Reports of Cases in Law and Equity in the Supreme Court of the State of New York. By OLIVER L. BARBOUR, Counsellor at Law. Vol. I. Albany: Gould, Banks, & Gould, 104 State-street. New York: Banks, Gould, & Co., 144 Nassau-street. 1848.

which each shall be assigned, shall be held out of the district within which he was elected." By this wise provision, while the services of the judge are in the main confined to his constituents, on the other hand, the advantage is secured, to a degree, of having judges not immediately appointed by those upon whose concerns they decide; and at the same time, the objection is partially obviated, that the new system is too localizing in its tendency, and lacks unity.

We repeat, it is the fact that the Judiciary, the first volume of whose reports is before us, is an elective one, which gives this volume its peculiar interest. It contains not many cases of a direct mercantile bearing. But what merchant of liberal views can fail to perceive the general and the important bearing of such great changes as have lately been made in the Judiciary system of the State of New York? Whatever affects the law of remedy on contract, or the tribunals by which that law is administered, affects the merchant. It must be satisfactory to the merchant, as well as to the lawyer, to find in this, the first volume of the new reports, the evidences of that same ability and learning which have hitherto marked the decisions of New York. Indeed, strange as it may seem, it is exceedingly doubtful if the most strenuous opponent of the elective system, on taking up this volume and reading it through, without previous intimation, would know that it came from an elective, *or* judiciary, or one appointed in any other way.

Among the decisions of general interest to merchants, is the able opinion of Justice Edmonds, in the matter of Prime, (page 296.) Messrs. Prime, Ward, & Co. were arrested, shortly after their failure, upon a warrant issued under the non-imprisonment act (so called) of 1831, at the suit of a judgment creditor. The statute provides, that on paying the debt for which he is arrested, or giving security to pay it in sixty days, or making an assignment of his property, or giving bond to assign, the debtor may be discharged. Messrs. Prime & Ward offered, on their arrest, to make a general assignment for the benefit of all their creditors, and demanded their discharge. The plaintiffs insisted that they were entitled to a discharge for their exclusive benefit; and the single question to be decided, and which, singularly enough, had never been settled, although the statute has now been in force seventeen years, was whether the assignment entitling the defendant to his discharge, is a general assignment, or one for the benefit of the prosecuting creditor alone. Justice Edmonds, after a masterly analysis of the statute, comes to the conclusion, contrary to his first impression, that the debtor must assign for the benefit of the judgment creditor alone, who prosecutes.

The decision in Koppel *vs.* Henrichs, (page 449,) is important to foreign consuls and those dealing with them. It is a well established and well known rule of jurisdiction, that foreign consuls can only be sued in the federal courts. In this case, the defendant, after the commencement of a suit against him in a State court, was appointed consul at New York for one of the German states. The court held that a subsequent appointment of this kind does not divest a State court of jurisdiction previously acquired.

The well known case of Metzger is also reported in this volume. Metzger was a notary in France, whence he fled to the United States, charged with forgeries and embezzlements to a large amount. The French authorities, upon his arrest here, demanded his surrender under the entradition clause of our treaty with France of 1843. No law had been passed by Congress, since the ratification of this treaty, providing for, or pointing out, the mode of carrying it into effect. Justice Edmonds, after a most able and elaborate constitutional examination of the question, comes to the conclusion that this clause in the treaty does not execute itself; that further action is necessary than the mere ratification of the treaty by the President and Senate, to give it legislative infra-territorial effect; and that no such act having been enacted by Congress, there was no authority in State or federal officers to hold or surrender the prisoner. He was, therefore, discharged.

Those interested, as victims, or otherwise, in the strange and stringent system of assessments for improvements, pursued in the city of New York, and in other cities in the State, will read with interest the decision in the matter of the Flatbush Avenue, (page 286,) in which it is held that in proceedings for the sale of

property for assessments, the utmost accuracy must be observed by the Commissioners, and the directions of the statute strictly pursued.

Such are a few of the important cases in this volume; and judging from its contents, we think all will agree, that in respect to its law reports, at least, the republic of New York has, as yet, taken no detriment from the establishment of an elective Judiciary, which, it was anticipated by many, would be attended with very grave results.

LIABILITIES OF SURETIES ON THE BONDS OF EMPLOYEES, IN BANKING AND OTHER PUBLIC INSTITUTIONS.*

In the Supreme Court of Louisiana, on appeal from the Fifth District Court of New Orleans. Louisiana State Bank *vs.* James Duplessis, *et al.*

Louisiana State Bank vs. *James Duplessis, et al.* } Appeal from the Fifth District Court of New Orleans.

SLIDELL, Justice.—The defendant, Ledoux, became the surety of James Duplessis, who was appointed note clerk of the bank on the 26th of February, 1840. The bond by which Duplessis and his two sureties, Ledoux and Durive, bound themselves jointly and severally, bears date 29th February, 1840, and is for the sum of $12,000. It declares that, "whereas James Duplessis had been appointed note clerk, to continue in office during the will of the present or any future board of directors of said bank. Now, the condition of the above obligation is such, that if the said James Duplessis shall well and truly, and faithfully do and perform all and singular the duties of said office of note clerk; shall render a faithful account of all monies and effects committed to his charge, or under his control; and generally, shall save the said Louisiana State Bank harmless from, or on account of any negligence or misconduct of him, the said James Duplessis; then this obligation to be void, or else to remain in full force and virtue."

Duplessis embezzled from the bank, at different times in the years 1841, 1842, and 1843, an amount exceeding $12,000, and the present action is brought to recover from Ledoux the amount of the bond, with interest from judicial demand. There are three grounds of defence presented by counsel:—

1st. The petition admits that the first amount embezzled by Duplessis was taken on the 30th day of March, 1841; and consequently, that he discharged his duty faithfully until that time. It is contended, therefore, that under the bond the defendant is not liable, because, at the date of the first defalcation, his appointment had expired; that his office was an annual office, and that his sureties were bound for one year only. Confining our inquiry to the words of the contract, in ascertaining its intention, it would be impossible to recognize the limitation claimed. But it is said that though the words of the bond may cover an indefinite period, yet if by an act of the legislature, or the records of a corporation, it appears that the office was annual, the obligation must be understood as referring to an office so limited.

The argument presented is mainly deduced from the provisions of the charter, with regard to the election of directors. It provides that the dirctors of the bank shall be annually elected, and forbids the re-election of more than two-thirds of the directors in office at the time of each annual election; permitting no director to hold his office more than three years out of four in succession. But it does not follow from this legislation with regard to the board of directors that the mere clerks and servants of the corporation should hold their appointments by the same tenure. If these clerks and servants were to be considered the mere clerks and

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* The following case was tried before a jury, and a verdict rendered in favor of the defendants. The decision of the Supreme Court, on appeal, is a most able and highly important one, involving the liabilities of sureties on the bonds of employees, in banking and other public institutions. We give the opinion of the Court on the points involved, condensing the report of the case, which, with testimony, occupies nearly fifty pages.—*Commercial Times.*

servants of those who appoint them, the conclusion might be a reasonable one. But we do not so regard them. They are the clerks and servants of the corporation, and the limited term of service of the directors does not control the duration of such appointments. There is nothing in the by-laws of the bank limiting the duration of the place of the note clerk, and his appointment itself was general. These views rest upon high judicial authority. The subject was considered in the case of Anderson *vs.* Langden, (1 Wheaton, 91,) in which one McLeod was appointed agent of a company for the purpose of encouraging the manufacture and use of domestic merchandise. That case is almost analagous to the present one. In the argument of it, the case of the Commonwealth *vs.* Fairfax is cited, where the words "so long as he shall continue in office," in the condition of a sheriff's bond, were not construed to extend to a second and new appointment. Chief Justice Marshall, in delivering the unanimous opinion of the Court, said "the case of the sheriff's bond is very different. The commission of sheriffs, in Virginia, is annual; of course his sureties are bound for one year only. It is true the directors of a company are elected annually, but the company has not said that the agent shall be for one year only; his appointment is during pleasure. The sureties do not become sureties in consequence of their confidence in the directors, but of their confidence in the agent, whose sureties they are."

In the case of the Union Bank *vs.* Ridgely, the suit was upon a cashier's bond, who had been appointed without any specific duration of his office having been fixed. The propositions in that case had been urged ineffectually, and negatived by the court. See 1 Harris & Gill, Maryland reports, p. 432, wherein it is held that the cashier's office is limited only by the duration of the charter, subject to the removal of the incumbent by the directors, and that he was not necessarily an annual officer. The same doctrine is mentioned in the case of the Dedham Bank *vs.* Chickering, 3d Pickering, 340.

The counsel in the present case had laid much stress upon the 5th section of the charter of the bank, providing for the appointment by ballot of the president and directors, and other officers, agents, and servants. If the legislature had intended that the clerks and servants of the bank should be appointed annually, that the duration of their offices should be for one year only, it is surprising that this should have been left to mere implication. The lawgiver seems to us to have considered the subject of legislation mutual only, with regard to those who were to govern and control the institution, leaving the matter as to the agents and servants of the corporation to the discretion of the governing power. We find provision is made in the charter with regard to the amount of the cashier's bond, but nothing is said as to the duration of his office; yet the same clause which grants the power to appoint the cashier, provides for the appointment of clerks.

It is said, however, that in this case there was a re-appointment of Duplessis, and the counsel reply to show the fact, and as indicative of the construction put by the directors upon the charter, an entry from the minutes of the board, dated 3d March, 1841, being a resolution confirming the clerks in their respective situations. This is but an approval of past appointments, and cannot be construed into a new appointment.

We find nothing in the authorities cited at the bar which conflicts with the view we have taken as to this point of the defence, to wit: The Liverpool Water Company *vs.* Atkinson, 6 East, 507; Lord Arlington *vs.* Mericke, 2 Saunders, 411; the Wardens of St. Saviones *vs.* Bostock, 5 Bos., and Fuller, 177; the United States *vs.* Kirkpatrick; the case of the collector of the poor and church rates in 2 Bingham (Dudley *vs.* Evans) 32, and in Bigelow *vs.* Bridge, 8 Mass., 267, in all of which the period of appointment, or duration of term of office, is expressly stipulated and averred. The defendant could not have misunderstood the terms of the bond, and must have considered himself responsible for Duplessis' honesty as long as the bank should think proper to employ him in the capacity designated in the instrument.

2d. The next ground of defence taken by Ledoux is, that he is discharged from all liability to the plaintiffs, because the bank, although called on by the defen-

dant to take legal steps against Duplessis, refused to do so, and allowed him to abscond. Defendant relies on the article 3030 of the Civil code, which is the same as the article of the Napoleon code, and upon the opinions of certain French commentators and tribunals as to its just intendment. Under the Roman law, it seems that the refusal of the creditor to sue upon the request of the surety, would not operate the surety's discharge, I 62 ff de fide ju ss, and Domet, Book III. tit. 4, sec. 2, art 5.

If we look to the literal language of the article 2037, code Napoleon, and the corresponding article of our code, it would require an *act* of the creditor to discharge the surety. "The surety is discharged when by the *act* of the creditor the subrogation to his rights, mortgages and privileges, can no longer be operated in favor of the surety." We are of opinion, that under the circumstances of the present case, there has not been such an omission as would authorize us to consider the surety discharged. The surety was promptly notified of the defalcation. If he desired to have Duplessis arrested under the act of 1840, it was fully in his power to have obtained an order of arrest by paying the bank. The point in question was considered in the case of Borette *vs.* Martin, 16 Louisiana 36, by Judge Martin, which fully sustains the opinion of the present Court; see also case of Cougot *vs.* Fournier, 4 Rob. 423, and Civil Code, art. 3026.

3d. The next ground of defence, that Ledoux has been discharged from all liability on the bond in consequence of the gross neglect of the plaintiffs to perform the conditions, expressed and implied, which were incumbent upon them, and which formed the consideration of his contract as surety. In support of this point, the defendant relies upon the by-laws of the bank, and the testimony of the cashier. The by-laws point out the duties of the cashier in taking charge of the cash and examining the accounts of the bank, and also require the directors shall visit monthly the vaults, and cause an inventory to be made, to be compared with the books, in order to ascertain that they agree therewith, &c. The inquiry into the effect of the facts above stated (the testimony of the cashier) upon the legal right of the parties, resolves itself into two branches, of which the first is, whether these by-laws of the bank are to be considered as entering into the contract of the surety.

They certainly are not referred to expressly in the bond. It was conditioned for the faithful performance of Duplessis' duties; there was no useless qualification that the surety would be bound only in case the directors should vigilantly discharge their duty according to the by-laws of the bank. As between these parties, we feel bound to say that the by-laws are directory to the managers of the institution, and do not form a part of the contract with Ledoux. See Angel and Ames on Corporations, and the authorities cited. The question then remains, whether, under the terms of the bond itself, and the general principles of law affecting the contract, the absence of minute vigilance on the part of the directors, unaccompanied by fraud, discharges the surety?

Ledoux bound himself for the honesty of Duplessis, and he has been unfaithful—not a guaranty that he should be honest if closely watched—a bond with such a clause would not be accepted. The language of Chief Justice Marshall, in the case already cited on another point, is very pertinent here. See also Trent Navigation Company *vs.* Harley, 10th East, 40; Angel and Ameson Corporations, 317; 2d Metcalf, 241; United States *vs.* Kilpatrick, 9 Wheaton, 737. We must attribute the verdict of the jury to an erroneous conception of the legal effects of a want of exact and searching vigilance on the part of the cashier, and perhaps of the directors; and probably the refusal to have Duplessis arrested, contributed to turn their minds in favor of the surety, whose case is unfortunate.

It is therefore decreed that the judgment of the Court below in favor of Ledoux, be reversed, and that plaintiff recover of said Ledoux the sum of $12,000, with interest and costs.

COMMERCIAL CHRONICLE AND REVIEW.

TENDENCY TO SPECULATION IN THE MARKETS—INCREASED DEMAND FOR GOODS—ACCUMULATION OF CAPITAL—ADVANCE OF STOCKS, AND IMPROVEMENT IN PRICES OF GOODS—UNITED STATES STOCK ISSUES ON FOREIGN ACCOUNT—PUBLIC CREDITORS RESIDING IN NEW YORK—EUROPEAN INVESTMENTS IN UNITED STATES STOCKS OF ALL DESCRIPTIONS—DEMAND FOR SPECIE—AUSTRIAN CREDIT—THE ROTHSCHILDS—PRICE OF PRODUCE IN GREAT BRITAIN—IMPORTS, EXPORTS, AND DUTIES OF NEW YORK IN 1848—NEW YORK DIVIDENDS—BOSTON DIVIDENDS IN BANK AND OTHER STOCKS—BALTIMORE DIVIDENDS ON CITY LOANS, BANKS, AND OTHER STOCKS—OUR COMMERCIAL RELATIONS WITH FRANCE, ETC.

THERE has been during the month a continued tendency to speculation in the several markets. The singular demand for goods which sprung up for California, on receipt of the remarkable news from that romantic region, gave an impulse to business at a season usually dull, and by reducing stocks of goods and improving prices at moments when minds were being excited by the wonderful accounts that were daily received through a thousand avenues of intelligence, gave a practical effect to the speculative desire, and prices, which have ruled low for a long time past, have generally advanced, the market presenting an unusual degree of activity and buoyancy for the season. The improvement is more particularly observable in the articles of ashes, coffee, cotton, corn, flour, molasses, whale and sperm oils, beef, pork, pickled and smoked meats, nutmegs, domestic liquors, sugars and whalebone, as well as in dry goods, which are probably some 15 per cent higher than at the close of the fall season of business, with small stocks and limited importations. Both manufactured and imported goods give evidence of the improving sales and brightening prospects of the coming year, and this feeling is manifest in the enhanced demand for, and rising prices of, raw material. Cotton, more particularly, has, under the influence of improved trade in Europe, advanced some 20 per cent on the lower, and 17 per cent on the higher grades since the early part of December, and this advance has imparted great confidence to the southern trade.

During the past year the accumulation of capital in the country has been so rapid, under many favoring circumstances of internal prosperity, that property of all kinds has steadily improved in value, notwithstanding the untoward state of the foreign trade, the disordered condition of Europe, and the war expenditure we have encountered. Stocks, more particularly, have felt this influence, and month by month they have improved, until the rates now are much over those of last year. Government stocks, more particularly, are some 8 per cent higher at the close than at the commencement of the year, the prosperity of which is indicated in almost every direction to which the attention is turned; and there never probably was a week preceding New Year in which money could be more readily obtained on all securities than in the last week of December, 1848.

Many articles of goods and produce have improved under the influence of the California news, as well from direct demand for that destination, as in the case of oils, from collateral influences; as it has been apprehended that the withdrawal of force from the whaling trade to dig gold in the Sierra Nevada, will diminish the supply of oil. Provisions were also for a time enhanced in value, through fear of the effects of the cholera at New Orleans in checking supplies. All the elements of prosperity are, however, in action both here and in Europe;

and while cotton and breadstuffs are being exported in considerable quantities at improving rates, the foreign demand for stocks is large and increasing. In our number for December, we gave a table of the issues of stocks at Washington on foreign account, from October 2d to November 18th, inclusive. The following table brings down the issues to January 13th :—

UNITED STATES STOCK ISSUES ON FOREIGN ACCOUNT.

To—	Total, Oct. 2 to Nov. 18.	Nov. 25.	Dec. 2.	Jan. 6.	Jan. 13.	Total.
England	$1,765,550	$346,000	$192,000	$346,500	$137,500	$2,787,550
Germany	349,500	95,700	37,200	161,000	157,800	801,200
France	200,600	49,000	62,000	71,000	132,950	515,550
Switzerland	40,800	4,000	12,000	16,500	11,000	84,300
Cuba	5,000	.....	.....	2,000	.....	7,000
Portugal	7,000	.....	.....	.....	.....	7,000
Canada	96,100	2,000	.....	3,800	.....	101,900
Ireland	10,000	.....	.....	.....	13,000	23,000
Belgium	3,000	.....	.....	.....	.....	3,000
Brazil	28,000	.....	.....	.....	5,000	33,000
Spain	62,000	.....	.....	.....	.....	62,000
Madeira	7,000	.....	.....	.....	.....	7,000
Hayti	.....	.....	2,200	.....	.....	3,200
Total	$2,574,550	$496,700	$306,400	$600,800	$457,250	$4,435,700

During the months of June and December a full statement is made out in the Treasury Department of the amount of interest due to each stockholder of the several loans, and transmitted to the assistant treasurers, from Boston to New Orleans, and ready for disbursement on the first day of January and July respectively. This arrangement suspends the transfer of stocks on the books from December 1st until the 1st of January, and it is therefore not until the reopening that it is possible to ascertain what investments have been made on foreign account for three or four weeks ; for, although assignments may continue to be made in the certificates of stock in the market during that period, the transactions will remain incomplete until the transfer can be made on the public records.

On the opening of the books it appeared that the following is the number of public creditors residing in the city of New York, and the amount of each loan held by them, including the number and amount held by non-residents, whose agents reside in the city :—

	No. of creditors.	Amount held by them.
Of the loan of 1842	265	$2,921,330 32
" " 1843	151	3,323,100 00
" " 1846	328	2,676,300 00
" " 1847	837	9,492,300 00
" " 1848	330	5,667,100 00
	1,911	$24,080,130 32

This is the number of names on the several dividends payable in New York on the 1st instant. The whole amount of the several loans, exclusive of coupons, was, on the 1st instant, $39,936,316 83.

In the first week after the opening, $198,000 was transferred on account of Messrs. Corcoran & Riggs. It is a remarkable feature that the transfers on French account have increased, and this arises probably from the fact that improving prices in Paris permit holders to realize from French property for investment in more profitable if not more safe securities. Among these investments was $13,000 by the Prince de Joinville.

It will doubtless be the case, that such a reaction in the European markets as will permit of the realization of property at any reasonable rates, will produce as extensive investments in the United States descriptions. Thus, before the revolution, French 3 per cents were at 74, which gave an interest of 4¼ per cent. At the latest dates those three per cents were at 45, at which rate they yield 6⅔ per cent, and are exposed to all the frightful evils that flow from a bankrupt and unsteady government. To realize such a stock, and invest in American securities, would be but the part of ordinary prudence. Thus a person who held French rentes, that cost him, at 75 per cent, $3,000 one year since, received $120 annual interest. If he can now realize those bonds at 50 per cent, he may invest in American stocks and still receive $120; thus he will have sustained no actual loss in income by the fall of 25 per cent. Active parties abroad are bringing these facts prominently before the public. In London, United States 6 per cent stock may be had at 99½, which will give, clear of all expenses, 5½ per cent for 20 years; at the same time 3 per cent consols were at 87, a rate which will give 3¾ per cent interest, only making 50 per cent in the income of a stock in favor of the American security, and no stock will compare with the United States in point of safety.

The demand for specie, silver more particularly, for the continent of Europe is large, and sustains the rates in London in the face of extraordinary arrivals from America. Since the peace of 1815 it has been the case that industry and commerce and paper credits have made great progress upon the continent, and consequently the circulating paper has entered largely into the currency of Austria, Prussia, and France. In the present time of distrust, the old desire to hoard specie has returned in double force, and a marked feature in all the great cities is the desire to exchange notes for silver, and the demand for this purpose absorbs, at high rates, all that arrives in London. The Austrian credit is in a very hazardous condition, and a new loan of about $40,000,000 is proposed, among growing republicanism, to support a tottering dynasty. Hitherto, the omnipresent house of Rothschild has been the focus into which the floating capital of the people of all European countries has been concentrated and applied to the demands of governments. Their efficiency depended upon the allegiance of the monied men to existing governments. The revenues of aristocracy, gentry, and the better class of trades people, were freely loaned to the support of governments, which, under the name of protection, conferred monopoly on capital, and exacted from the laboring many the means of paying interest on the surplus profits thus derived and loaned to the state. The house of Rothschild has, for forty years, been the agent between the governments and these classes. An entire change has now taken place, and it has become manifest that labor must be emancipated from thraldom and oppression; hence the classes among whom the Rothschilds retailed the stock they took from the government have no longer confidence in these securities; and when Austria proposes a loan, the means of paying of which depends upon the subjugation of two countries like Italy and Hungary to a foreign yoke, in this age of the world, the hazard becomes too great.

While the demand for specie is thus active for Europe, however, it appears that the accumulation of gold in the Bank of England is exceedingly rapid, and the amount is now approximating the highest ever held, being over £15,500,000; and while money continues abundant in face of large importations of breadstuffs

into Great Britain, those large supplies keep the rate of food down to such a point as admits of a marked improvement in the home trade of the country, as evinced with increased activity of the manufacturing districts and the advance in cotton. As compared with last year, the exports of certain articles of produce from September 1 to January 6 were as follows, to Great Britain and Ireland :—

Years.	Flour. *Bbls.*	Price. Jan. 6.	Wheat. *Bush.*	Corn. *Bush.*	Corn meal. *Bbls.*	Cotton. *Bales.*	Price, fair. *Cts.*
1847.....	95,767	$6 06	118,094	606,301	51,715	164,651	6¾ a 9
1848.....	639,994	5 75	854,005	5,071,713	45,193	352,400	5½ a 6¾
Increase.....	544,227		735,911	4,465,412	.....	187,749	

The increase in value of exports is, for this period, very considerable, and with every prospect of improving markets for these articles abroad, the commerce of the year 1849 will probably turn out large and lucrative. The imports and exports of the port of New York, for the current year ending with December, has been as follows :—

IMPORTS PORT OF NEW YORK.

	1847.			1848.			1847.	1848.
	Specie.	Free.	Dutiable.	Specie.	Free.	Dutiable.	Duties.	Duties.
January....	$90,874	$478,443	$5,499,682	$42,306	$561,129	$8,941,688	$1,434,836	$2,357,317
February...	1,235,122	285,128	5,889,387	49,502	141,539	9,566,859	1,496,716	2,416,497
March.....	1,329,458	786,937	6,060,746	22,781	2,199,749	5,971,601	1,652,092	1,553,003
April.....	3,397,064	1,987,033	8,539,429	65,917	475,314	6,639,716	2,109,404	1,686,506
May.....	1,326,697	738,755	5,868,261	133,922	1,283,754	5,087,279	1,487,173	1,312,036
June.....	547,813	401,358	5,789,109	69,532	525,088	4,718,404	1,460,017	1,143,497
July.....	294,219	861,578	7,950,602	64,631	650,055	7,046,389	2,068,335	1,794,236
August.....	195,555	404,290	12,974,196	133,855	1,128,553	9,796,775	3,337,341	2,532,273
September..	94,546	916,109	8,111,845	197,098	513,749	8,168,294	2,096,604	2,119,571
October....	100,773	312,383	4,753,836	127,998	439,587	5 136,332	1,232,404	1,328,833
November..	58,915	471,142	4,117,164	104,971	185,970	4,518,565	1,024,766	1,122,549
December..	39,712	111,251	3,316,845	70,488	283,755	3,251,940	856,576	806,620
Total....	$8,710,748	$7,754,407	$78,571,102	$1,083,001	$8,388,642	$78,843,842	$20,256,204	$20,172,938

EXPORTS.

	1847.				1848.			
	Specie.	Foreign Dutiable.	Foreign Free.	Domestic.	Specie.	Foreign Dutiable.	Foreign Free.	Domestic.
January....	73,728	49,073	26,273	3,043,552	1,183,517	222,684	4,496	2,456,615
February...	4,000	63,697	15 379	3,384,733	433,226	432,909	15,520	1,974,428
March.....	243,885	83,082	51,355	3,768,574	452,507	216,490	94,639	2,181,194
April.....	73,558	77,385	45,713	3,737,088	1,176,423	183,149	21,794	2,350,936
May.....	158,000	230,760	97,711	3,573,393	2,449,253	207,382	3,755	2,600,990
June.....	134,333	123,358	188,299	6,810,203	1,971,915	147,017	12,213	2,235,844
July.....	27,670	79,255	42,735	6,687,681	744,983	89,289	14,190	2,189,125
August	66,000	114,888	52,357	4,812,063	331,031	150,244	38,992	2,230,909
September..	350,925	146,332	46,843	2,672,452	501,445	175,846	41,421	2 936,293
October....	674,548	156,852	81,722	3,151,238	832,423	231,789	74,924	3.576,051
November..	1,455,946	207,162	54,558	1,907,879	482,156	166,874	34.504	3,695,287
December..	1,786,865	104,242	30,178	1,998,524	365,878	383,954	23,311	2,616,787
Total....	$4,833,455	$1,436,286	$733,123	$45,547,340	$10,734,783	$2,607,582	$334,299	$31,002,379

The importation of dutiable goods has, it appears, been very nearly the same as last year, while the exports of domestic produce decreased $14,500,000, or nearly 30 per cent, and that of specie was much increased. It will be observed, however, that in the last four months of the year there was a great excess of domestic exports. Thus the amount was as follows :—

Years.	September.	October.	November.	December.	Total.
1847.....	$2,672,452	$3,151,238	$1,907,879	$1,998,524	$9,730,093
1848.....	2,936,293	3,576,051	3,695,287	2,616,787	2,824,418
Increase.....	$263,841	$424,813	$1,787,408	$918,263	$3,094,325

The increased exportable value is 33½ per cent, and added to the amount of stocks sent abroad, as above stated, in connection with diminished imports, indi-

cates the large supply of bills as compared with demand, and the importations for the spring business are not likely to be large, at least in the early part of it. The goods imported for the past year have not remunerated the shippers very well; and although the demand for California has affected many descriptions, and improved the rates, it is probable that prices will not here rise so as to be remunerative in face of the renewed consumption of, and demand for, goods in most countries of Europe. The rise in raw materials, wool and cotton more particularly, under the enhanced demand from manufacturers, who look forward to a fair amount of business consequent upon the improved condition of the agricultural regions, arising from the prosperous export trade. The dividends earned by most companies, and payable in January, may be approximated in the following figures:—

NEW YORK DIVIDENDS.

	Interest. payable.	Capital.	Owned in New York.	Owned in Europe.	Amount of interest.
N. York State debt	1½ p. c.	$23,937,248	$12,330,000	$10,120,000	$312,705
United States debt.	2½ "	6,927,835	2,323,100	1,000,000	173,195
" " .	6 "	44,876,499	16,757,030	4,000,000	1,346,294
Indiana.....	2 "	5,534,000	1,600,000	3,000,000	110,680
Illinois.....	½ "	12,000,000	3,000,000	6,000,000	60,000
Ohio.....	3 "	16,964,282	4,000,000	6,507,828	581,754
Maryland.....	1½ "	11,986,784	1,000,000	5,600,000	165,175
Aggregate pub. st'k		$122,226,648	$32,910,130	$36,227,828	$2,749,803
Tradesmen's Bank.	5 "	400,000	325,560	2,640	20,000
Mer. Exch'ge Bank	8 "	750,000	482,550	25,500	60,000
Seventh Ward Bank	4 "	500,000	405,650	1,900	20,000
North River Bank.	4 "	655,000	477,850	25,100	26,200
Bank of America..	3½ "	2,001,200	1,028,800	317,200	74,042
Phœnix Bank.....	3½ "	1,200,000	844,420	68,380	42,000
Bank of Commerce	4 "	3,447,500	1,886,280	211,640	137,800
Chemical Bank.....	6 "	400,000	285,000	5,000	21,000
Total banks.....		$9,353,700	$5,776,110	$657,360	$400,042
N. York Ins. Com.	3 "	500,000	327,300	54,300	15,000
N. York & Erie R'd	3 "	4,250,000	3,768,100	49,200	.....
Harlem Railroad....	4 "	2,250,000	1,746,500	.....	.....
Pater'n & Hud. R'd	4 "	500,000	200,000	.....	20,000
Cam'n & Am'y R'd	6 "	3,200,000	1,200,000	600,000	192,000
Total.....		$138,586,348	$54,528,140	$36,988,738	$3,376,845

The Erie Railroad dividend or interest is only on the new stock, $3,000,000, and the Harlem on the preferred stock, $1,500,000.

The proportions of stock owned in New York, as here given, are mostly from official sources. The stocks owned in other States, and in the interior of this State, form the balance between the sum of that owned in Europe and in this city, and the whole capital. That for New York is from a comptroller's report. The United States stock is that portion payable to holders in the city of New York, and we have estimated the proportion of that amount so held on foreign account. The Ohio stock held abroad is as it stands on the books of the company, and the Indiana and Illinois according to the proportions subscribed to the new loan. The bank and company stocks are according to an official report. There is a considerable amount of distant bank stock—Clinton Bank, Columbus; Franklin Bank, Cincinnati; Bank of Kentucky, and Bank of Mobile, &c., in addition to Eastern and Western Railroads, Insurance, Trust, Savings, Gas and

Canal Companies, &c., that are owned in this city, on which the dividends are receivable this month, as well as many city insurance dividends on mutual insurance scrips, &c., which we have not enumerated, as also interests upon mortgages.

The amount of the leading dividends payable in Boston, was estimated as follows :—

BOSTON DIVIDENDS.

When paid.	Stocks.	Capital.	Dividend.	Amount.
January 1	—Boston and Worcester Railroad	$4,200,000	4	$168,000
	Western Railroad	5,150,000	4	206,000
	Boston and Maine Railroad	2,974,100	4	118,964
	" " int. on new st'k.		.	8,571
	" Lowell Railroad, (par $500)	1,800,000	4	72,000
	Fitchburgh Railroad	2,650,000	4	106,000
	Boston and Providence Railroad	2,897,500	3	86,925
	Pittsfield and North Adams Railroad	45,000	3	13,500
	Tremont Insurance Company	200,000	6	12,000
	American Insurance Company	300,000	4	12,000
	Franklin Insurance Company	300,000	7	21,000
	Salmon Falls Manufacturing Company	500,000	4	20,000
	Jackson Manufacturing Company	480,000	4	19,200
	Cocheco Manufac. Com., on 2,000 shares			42,000
	Interest on Albany Bonds			30,000
	On Mass. Bonds, (Eastern Railroad $2,500, Norwich and Worcester $16,000)			12,500
	On United States Loans			200,000
	On Boston City Stock			13,000
	On Norwich Stock			6,000
	On Vermont Central Railroad Bonds			9,000
	On Cheshire Railroad Bonds			13,000
	On Vermont and Mass. Railroad Bonds			900
	Total amount payable January 1			$1,207,500

When paid.	Stocks.	Capital.	Dividend.	Amount.
January 6	—Cabot Manufacturing Company	500,000	3	15,000
" 8	—Fall River Railroad	1,050,000	3½	36,750
" 15	—Eastern Railroad, Massachusetts	2,655,700	4	106,220
	" New Hampshire	492,500	4	19,708
	Boston and Sandwich Glass Company	300,000	3	9,000
	Boston Exchange Company	335,000	3	10,050
	Connecticut River Railroad	1,500,000	4	60,000
	Interest on Massachusetts scrip, issued for stock in Western Railroad			24,875
" 20	—Old Colony Railroad	1,600,000	3	4,800
	Total			$1,493,903

The following is an approximation to the capital, dividends, and amount of interest paid in Baltimore, for the last half year :—

BALTIMORE DIVIDENDS.

Banks.	Capital.	Dividend. per cent.	Amount.
Union	$916,350 00	3	$27,490
Farmers and Planters'	600,625 00	3½	21,121
Merchants'	1,500,000 00	3	45,000
Western	308,280 00	3	9,248
Chesapeake	340,577 00	3	10,217
Franklin	304,203 00	3	9,126
Baltimore	1,200,000 00	3	36,000
Mechanics'	590,844 00	3½	20,679
Marine	310,000 00	3½	10,850

BALTIMORE DIVIDENDS—CONTINUED.

Banks.	Capital.	Dividend. per cent.	Amount.
Farmers and Merchants'	$393,500 00	3	$11,806
Commercial and Farmers'	512,560 00	4	20,502
Insurance.			
Firemen's	252,000 00	6¼	15,750
Baltimore Life	100,000 00	3	3,000
Miscellaneous.			
Baltimore Water	500,000 00	4	20,000
Turnpikes.			
Baltimore and Reisterstown	638,000 00	1	6,380
" Frederick	597,302 00	¾	4,480
" York	279,000 00	½	1,395
" Washington	140,000 00	¾	1,050
" Harford	100,000 00	2½	2,500
Boonsborough	68,000 00	½	340
United States Stocks.		...	
United States 6's	2,800,425 00	...	84,012
" 5's	58,300 00	...	1,458
Baltimore City Loans.		...	
Baltimore city 6's	4,456,713 12	...	66,850
" 5's	905,421 84	...	11,318
Maryland Stocks.		...	
6's, payable quarterly	3,738,334 34	...	56,075
6's " semi-annually	202,326 15	...	6,069
5's " quarterly	1,744,208 27	...	21,802
4½'s " "	1,000,000 00	...	11,250
3's " "	500,000 00	...	3,750
Total			$539,518

There are several other companies of which we have no account, and besides these, there are the loans of the Baltimore and Ohio Railroad, which, with others, will make the amount of the dividends and interest since the 1st of October, over $650,000.

The amount of dividends of these three cities, payable in January, is probably not short of $6,500,000, and it will be remembered that these are the January dividends only. The New York companies pay some of them in almost every month in the year. Thus, of twenty-five banks, only seven pay in January, as above. In nearly every instance there has been an increase of earnings for the last six months of 1848 over the corresponding period of former years. Thus, seven New York banks declare $356,142, January, 1849, against $320,288, January, 1848, being probably a larger dividend than has ever been earned by the institutions in any previous similar period.

The accumulation of capital in the United States for the past few years has been exceedingly rapid, both from economy and industry, as well as from immigration, and the unfortunate results of English and European harvests, which have compelled the expenditure of much money there for those products of agricultural industry which were here in excess, and which, without European demand, would not have been readily available. It has also been the case during the past year, that political convulsions have induced the sale of goods abroad at very low prices for cash, and there was probably never a time when the consumers of goods in the United States procured so valuable returns for their surplus produce. In this manner it is that the capital of the old world serves to accumulate that of the new. In England, when the money price of food is high, the money price

of the products of industry is generally low, and they have in consequence to give double quantities of their industry for food, and reciprocally the United States get double prices for breadstuffs. As thus, if with flour at 20s. in Liverpool, a certain quantity of cloth will command 10s. per yard, then a barrel of United States flour will exchange for two yards. If, however, flour rises to 35s., and, as a usual consequence of the advance of food, the cloth falls to 7s., then the United States producer gets five yards of cloth instead of three. In this manner it is that the United States have profited by the events in Europe for the past two years. It has been the effect of the English corn laws to produce these violent fluctuations in price, and, as a consequence, to dissipate, in a twofold ratio, the capital of the country in time of scarcity. In February, 1849, according to the existing law, the duties on corn will be finally removed in England, and the English market will be open to the surplus of all countries. The effect of this will be, probably, not to produce any violent and sudden change in the markets; but gradually, under the action of rapid steam communication, to keep the English markets so well and steadily supplied with food as to prevent anything like those serious fluctuations which have been witnessed in the last two years. That wheat rose in England to some 120 shillings per quarter, grew out of the fact that imports so large as she then required were unusual, and commerce had made no provision for the transportation; hence a large portion of the price was absorbed in that item of expense.

The events of that year showed, however, what before had not been fully credited, viz: that with *adequate means of transportation* there is no limit to the supply which can be furnished by the United States, and a very considerable portion of this supply can, by the great railroad communications to be opened this year, in addition to others already in existence, be promptly placed in a rising market.

Under the new administration of France, there is the best hope that those antiquated and monarchical restrictions which have so long clogged the commerce, and hampered the industry of that country, will be removed, or at least relaxed, in favor of the United States. Up to this time, France has no commercial treaties; but the new president, as far as any direct indications have proceeded from himself, recognizes those sound principles of political economy which alone are suited to a republican form of government, based upon the actual equality of its citizens. Peace, and unrestricted and individual enterprise, unbiased by government, are asserted to be the elements of French prosperity, and to attain these ends, many taxes must be removed. England, as an instance, has found it necessary to abandon the tax on cotton, and Germany has done so likewise. France cannot tax the article and expect her people to compete with those spinners who use the untaxed article. The manufacturers of England found 12 per cent duty too onerous on the raw material, and they repealed it; yet the French manufacturer continues to pay 30 per cent! That the commercial relations of republican France and republican America will be drawn closer together, for the advantage of both, there can be no doubt.

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THE COINAGE OF THE UNITED STATES.

THE Mint of the United States, which has been established for the coinage of the precious metals, is one of the most important branches of the Treasury Department of the General Government. Placed by the Constitution under the supervision of the Secretary of the Treasury, its operations are annually reported by the Director, and laid open by the President to Congress. It is our design, in the present paper, to trace the progress of this establishment from its origin to the present time, and to exhibit the facts connected with the kind and amount of the coins which have been issued from the institution during the whole period of its existence.

While the colonial dependence of the country upon Great Britain continued, the earliest coins which were here circulated were derived from the parent government. In the colony of Massachusetts, however, as well as in other colonial settlements, those were so scarce that it was customary to prosecute domestic trade and to pay taxes by the transfer of the products of the land, as well as cattle, and also furs and peltry. In consequence of the inconvenience springing from this condition of things, the former colony, during the year 1652, passed a law establishing a Mint. This law provided for the coinage of shillings, sixpences, and threepences, to be of the fineness of sterling silver, and to be "twopence in the shilling of less value than the English coin." This Mint continued in existence thirty years, and a considerable amount of coin was issued during that period. The device of a pine tree upon one side of the shilling has given to the entire series the general designation of "the pine tree coinage." In the year 1662, silver and copper coin were also issued by the colony of Maryland, and those constituted the sole issues of silver coin previous to the separation of the colonies from the parent country. Copper coin was, however, issued by other colonies. Half-pennies were in 1694 struck for the Carolinas; twopenny pieces and pennies in 1723; another emission of pennies in 1723 was made; and during the year 1773, half-pennies were coined for the State of Virginia. Before the permanent establishment of the national Mint, and after the Revolution, there were, moreover, various species of silver and copper coin issued both by States and individuals.

With the increase of trade throughout the colonial establishments, however, foreign coin, both gold and silver, were introduced, and constituted a part of the circulating medium. Those were principally composed of guineas, joes, half-joes, doubloons, and pistoles in gold; and dollars, with their various parts, pistareens, with their parts, British shillings and sixpences, in silver. After the Revolution, French crowns were extensively circulated throughout the country; but the coin most generally known was the Spanish American dollar, which, about that period, became so abundant that it was adopted as the standard of our own money. The pound of the colonies was, moreover, adopted at the same standard as the British pound, but it was soon depreciated in consequence of excessive issues.

On the occurrence of peace, measures were adopted for the purpose of establishing a system of national coinage. The financier of the confederation, Robert Morris, was directed by Congress to communicate to that body his views regarding the general subject of coins and currency, and early in 1782 his report upon the subject was presented. During the year 1784, Mr. Jefferson also made a report upon the same topic; and on a basis at that time proposed and ultimately adopted, it was concluded to issue four coins of the following denominations:—

1. A golden piece of the value of ten dollars.
2. A dollar in silver.

3. A tenth of a dollar in silver.

4. A hundredth of a dollar in copper.

The policy which was thus pursued respecting the general subject of coinage had been exercised under the confederation; but, in 1787, the Constitution of the United States prohibited those local issues, and vested the exclusive right of coinage in the national government. In accordance with this policy, a code of laws for the establishment and regulation of the Mint was enacted on the 2d of April, 1792, and under that system the coinage was executed for a period of forty-two years, with some unimportant modifications. The several denominations of those coins comprised gold eagles of the value of ten dollars, gold half and quarter eagles of the same relative value, silver dollars valued at one hundred cents, half dollars, quarter dollars, dimes, and half dimes of the same relative value, and copper cents and half cents. In consequence, however, of certain circumstances bearing upon their intrinsic value, modifications have, from time to time, been made in the standards of the usual coins by act of Congress, as they seem to have been required.

The present organization of the Mint of the United States is of great interest. Prior to the year 1835, there existed but one institution, the parent Mint, which commenced operations in 1793, and is established in the city of Philadelphia. It occupies a spacious and elegant edifice of white marble fronting upon Chesnut-street, and provided with all the delicate machinery and other appliances required for assaying, melting, refining, and the proper coinage of the precious metals. During that year three branches of the parent Mint were created by act of Congress. Two of these were located in the centre of the gold mining region, the one in the town of Charlotte, North Carolina, and the other in Dahlonega, within the State of Georgia, both being exclusively confined to the coinage of gold. The other was established in New Orleans for the coinage of gold and silver. During the year 1838 those branches went into operation, their coinage being uniform with that of the parent Mint, and is tested at this institution. Each of the branches is under the management of superintendents, whose official duties pass under the general supervision of the parent establishment in Philadelphia. We subjoin a corrected statement of the amount of coinage at the Mint of the United States, in the several denominations of coin, from the commencement of its operations until the 31st of December, 1847, inclusive:*—

AMOUNT OF COINAGE AT THE MINT OF THE UNITED STATES, IN THE SEVERAL DENOMINATIONS OF COIN, FROM THE COMMENCEMENT OF ITS OPERATIONS UNTIL DECEMBER 31, 1847, INCLUSIVE.

	GOLD COINAGE.				
Years.	Eagles.	Half eagles.	Quarter eagles.	Total gold coinage. Number.	Value.
	Pieces.	*Pieces.*	*Pieces.*	*Pieces.*	*Dolls. Cts.*
1793..... } 1794..... } 1795..... }	2,795	8,707	.....	11,502	71,485 00
1796.....	6,934	6,196	963	14,093	102,727 50
1797.....	8,323	3,609	859	12,791	103,422 50
1798.....	7,974	24,867	614	33,455	205,610 00
1799.....	17,583	7,451	480	25,414	213,285 00
1800.....	25,965	11,622	.....	37,587	317,760 00
1801.....	29,254	26,006	.....	55,260	422,570 00
1802.....	15,090	53,176	2,612	70,878	423,310 00
1803.....	8,979	33,506	423	42,908	258,377 50
1804.....	9,795	30,475	3,327	43,597	258,642 50
1805.....	.....	33,183	1,781	34,964	170,367 50

* For this corrected table we are indebted to the politeness of R. M. PATTERSON, Esq., the son of the able and efficient Director of the Institution, and to the Manual of Coinage, issued by the Assayers of the Mint of the United States.

AMOUNT OF COINAGE AT THE MINT OF THE UNITED STATES—CONTINUED.

GOLD COINAGE—CONTINUED.

Years.	Eagles. *Pieces.*	Half eagles. *Pieces.*	Quarter eagles. *Pieces.*	Total gold coinage. Number. *Pieces.*	Value. *Dolls. Cts.*
1806	.....	64,093	1,616	65,709	324,505 00
1807	.....	84,093	6,812	90,905	437,495 00
1808	.....	55,578	2,710	58,288	284,665 00
1809	.....	33,875	.....	33,875	169,375 00
1810	.....	100,287	.....	100,287	501,435 00
1811	.....	99,581	.....	99,581	497,905 00
1812	.....	58,087	.....	58,087	290,435 00
1813	.....	95,428	.....	95,428	477,140 00
1814	.....	15,454	.....	15,454	77,270 00
1815	.....	635	.....	635	3,175 00
1816	.....	.....	.....	.....	.....
1817	.....	.....	.....	.....	.....
1818	.....	48,588	.....	48,588	242,940 00
1819	.....	51,723	.....	51,723	258,615 00
1820	.....	263,806	.....	263,806	1,319,030 00
1821	.....	34,641	6,448	41,089	189,325 00
1822	.....	17,796	.....	17,796	88,980 00
1823	.....	14,485	.....	14,485	72,425 00
1824	.....	17,340	2,600	19,940	93,200 00
1825	.....	29,060	4,434	33,494	156,385 00
1826	.....	18,069	760	18,829	92,245 00
1827	.....	24,913	2,800	27,713	131,565 00
1828	.....	28,029	.....	38,029	140,145 00
1829	.....	57,442	3,403	60,845	295,717 50
1830	.....	126,251	4,540	130,891	643,105 00
1831	.....	140,594	4,520	145,114	714,270 00
1832	.....	157,487	4,400	161,887	798,435 00
1833	.....	193,630	4,160	197,790	978,550 00
1834	.....	732,169	117,370	849,539	3,954,270 00
1835	.....	371,534	131,402	502,939	2,186,175 00
1836	.....	553,147	547,986	1,101,133	4,135,700 00
1837	.....	207,121	45,080	252,201	1,148,305 00
1838	7,200	286,588	47,030	340,818	1,622,515 00
1839	28,248	118,143	27,021	183,412	1,040,747 50
1840	47,338	137,382	18,859	203,579	1,207,437 50
1841	63,131	15,883	.....	78,964	710,475 00
1842	81,507	27,578	2,823	111,908	960,017 50
1843	75,462	611,205	100,546	787,213	4,062,010 00
1844	6,361	340,370	6,784	353,515	1,782,420 00
1845	26,153	417,099	91,051	534,303	2,574,652 50
1846	20,095	395,942	21,598	437,635	2,234,655 00
1847	862,264	919,781	29,814	1,811,859	13,296,080 00
Total	1,360,351	7,203,755	1,247,626	9,811,732	52,741,350 00

AMOUNT OF COINAGE AT THE MINT OF THE UNITED STATES—CONTINUED.

SILVER COINAGE.

Years.	Dollars. *Pieces.*	Half dollars. *Pieces.*	Quarter dollars. *Pieces.*	Dimes. *Pieces.*	Half dimes. *Pieces.*	Total silver coinage. Number. *Pieces.*	Value. *Dolls. Cts.*
1793 } 1794 } 1795 }	204,791	323,144	.....	.....	.....	614,351	370,683 80
1796	72,920	3,918	5,894	22,135	10,230	115,097	79,077 50
1797	7,776	....	252	25,261	44,527	77,816	12,591 45
1798	327,536	....	....	27,550	.....	355,086	330,291 00
1799	423,515	....	....	.....	.....	423,515	423,515 00
1800	220,920	....	....	21,760	24,000	266,680	224,296 00
1801	54,454	30,289	....	34,640	33,910	153,293	74,750 00
1802	41,650	29,890	....	10,975	13,010	95,525	58,343 00
1803	66,064	31,715	....	33,040	37,850	168,669	87,118 00
1804	19,570	156,519	6,738	8,265	.....	191,092	100,340 50

AMOUNT OF COINAGE AT THE MINT OF THE UNITED STATES—CONTINUED.

SILVER COINAGE—CONTINUED.

Years.	Dollars.	Half dollars.	Quarter dollars.	Dimes.	Half dimes.	Total silver coinage. Number.	Value.
	Pieces.	*Pieces.*	*Pieces.*	*Pieces.*	*Pieces.*	*Pieces.*	*Dolls. Cts.*
1805.....	321	211,722	121,394	120,780	15,600	469,817	149,388 50
1806.....	.....	839,576	206,124	.....	.....	1,045,700	471,319 00
1807.....	.....	1,051,576	220,643	165,000	.....	1,437,219	597,448 75
1808.....	.....	1,368,600	.....	.....	.....	1,368,600	684,300 00
1809.....	.....	1,405,810	.....	44,710	.....	1,450,520	707,376 00
1810.....	.....	1,276,276	.....	6,355	.....	1,282,631	638,773 50
1811.....	.....	1,203,644	.....	65,180	.....	1,268,824	608,340 00
1812.....	.....	1,628 059	.....	.....	.....	1,628,059	814,029 50
1813.....	.....	1,241,903	.....	.....	.....	1,241,903	620,951 50
1814.....	.....	1,039,075	.....	421,500	.....	1,460,575	561,687 50
1815.....	.....	.....	69,232	.....	.....	69,232	17,308 00
1816.....	.....	47,150	20,003	.....	.....	67,153	28,575 75
1817.....	.....	1,215,567	.....	.....	.....	1,215,567	607,783 50
1818.....	.....	1,960,322	361,174	.....	.....	2,321,496	1,070 454 50
1819.....	.....	2,208.000	144,000	.....	.....	2,352,000	1,140.000 00
1820.....	.....	751,122	127,444	942,587	.....	1,821,153	501,680 70
1821.....	.....	1,305,797	216,851	1,186,512	.....	2,709,160	825,762 45
1822.....	.....	1,559,573	64,080	100,000	.....	1,723,653	805.806 50
1823.....	.....	1,694,200	17,800	440,000	.....	2,152,000	895.550 00
1824.....	.....	3,504,954	.....	.....	.....	3,504,954	1,752,477 00
1825.....	.....	2,943,166	168,000	510,000	.....	3,621,166	1,564,583 00
1826.....	.....	4,004,180	.....	.....	.....	4,004,180	2,002.090 00
1827.....	.....	5,493,400	4,000	1,215,000	.....	6,712,400	2,869,200 00
1828.....	.....	3,075,200	102,000	125,000	.....	3,302,200	1,575,600 00
1829.....	.....	3,712,156	.....	770,000	1,230,000	5,712,156	1,994.578 00
1830.....	.....	4,764,800	.....	510.000	1,240,000	6,514.800	2,495,400 00
1831.....	.....	5,873,660	398,000	771,350	1,242.700	8,285,710	3,175,600 00
1832.....	.....	4,797,000	320,000	522,500	965,000	6,604,500	2,579,000 00
1833.....	.....	5,206,000	156,000	485,000	1,370,000	7,217,000	2,759,000 00
1834.....	.....	6,412,004	286,000	635,000	1,480.000	8,813,004	3,415,002 00
1835.....	.....	5,352.006	1,952,000	1,410,000	2,760,000	11,474.006	3,443,003 00
1836.....	1,000	6,546.200	472,000	1,190,000	1,900,000	10,109,200	3,606,100 00
1837.....	.....	3,629,829	252,400	1,042.000	2,276,000	7,200,229	2,096,010 00
1838.....	.....	3,546,000	832,000	1,992,500	2,255,000	8,625,500	2,293,000 00
1839.....	300	3,334.561	491,146	1,053,115	1,069,150	5,948,272	1,949,136 00
1840.....	61,005	1,435,008	188,127	1,358,580	1,344,085	4.386,805	1,028,603 00
1841.....	173,000	310,000	120,000	1,622,500	1,150,000	3,375.500	577.750 00
1842.....	184,618	2,012,764	88,000	1,887,500	815,000	4,987.882	1,442.500 00
1843.....	165,100	3,844 000	645,600	1,370,000	1,165,000	7,189,700	2,443,750 00
1844.....	20,000	1,766,000	421,200	72,500	430,000	2,709,700	1,037,050 00
1845.....	24.500	589,000	922.000	1,755,000	1,564,000	4.854,500	803.200 00
1846.....	110,600	2,210,000	510,000	31,300	27,000	2,888,900	1,347.580 00
1847.....	140,750	1,156,000	734,000	245,000	1,274.000	3,549,750	990,450 00
Total....	2,320,390	108,101,326	10,644,102	24,250,095	25,822,478	171,138,391	62,748,211 90

AMOUNT OF COINAGE AT THE UNITED STATES MINT—CONTINUED.

COPPER COINAGE.

Years.	Total copper coinage. Number.	Value.	Years.	Total copper coinage. Number.	Value.
	Pieces.	*Dolls. Cts.*		*Pieces.*	*Dolls. Cts.*
1793... }			1812.....	1,075,500	10,755 00
1794... }	1,208,567	11,373 00	1813.....	418,000	4,180 00
1795... }			1814.....	357,830	3,578 30
1796.....	1,090,180	10,324 40	1815.....	.....	.....
1797.....	1,004,558	9,510 34	1816.....	2,820,982	28,209 82
1798.....	979,700	9,797 00	1817.....	3,948,400	39,484 00
1799.....	916,752	9,106 68	1818.....	3,167,000	31,670 00
1800.....	3,033,705	29,279 40	1819.....	2,671,000	26,710 00
1801.....	1,362,837	13,628 37	1820.....	4,407,550	44,075 50
1802.....	3,449,466	34,422 83	1821.....	389,000	3,890 00
1803.....	2,569,353	25,203 03	1822.....	2,072,339	20,733 39
1804.....	1,812,180	12,844 94	1823.....	.....	.....
1805.....	1,755,580	13,493 48	1824.....	1,262,000	12,620 00
1806.....	704,000	5,260 00	1825.....	1,524,100	14,926 00
1807.....	1,203,221	9,652 21	1826.....	1,751,425	16,344 25
1808.....	1,509,000	13,090 00	1827.....	2,357,732	23,577 32
1809.....	1,377,439	8,001 53	1828.....	2,866,624	25,636 24
1810.....	1,673,800	15,660 00	1829.....	1,901,500	16,580 00
1811.....	281,165	2,495 95	1830.....	1,711,500	17,115 09

AMOUNT OF COINAGE AT THE MINT OF THE UNITED STATES—CONTINUED.

COPPER COINAGE—CONTINUED.

Years.	Total copper coinage. Number. *Pieces.*	Value. *Dolls. Cts.*	Years.	Total copper coinage. Number. *Pieces.*	Value. *Dolls. Cts.*
1831.....	3,361,460	33,603 60	1841.....	1,597,367	15,973 62
1832.....	2,362,000	23,620 00	1842.....	2,383,390	23,833 90
1833.....	2,893,000	28,160 00	1843.....	2,428,320	24,283 20
1834.....	1,975,100	19,151 00	1844	2,397,752	23,977 52
1835	4,019,400	39,489 00	1845.....	3,894,804	38,948 05
1836.....	2,509,000	23,100 00	1846.....	4,120,800	41,208 00
1837.....	5,558,300	55,583 00	1847.....	6,183,669	61,836 69
1838.....	6,370,200	63,702 00			
1839.....	3,128,661	31,286 61	Total	118,279,478	1,145,591 21
1840.....	2,462,700	24,627 00			

AMOUNT OF COINAGE AT THE MINT OF THE UNITED STATES—CONTINUED.

TOTAL COINAGE.

Years.	Number. *Pieces.*	Value. *Dolls. Cts.*	Years.	Number. *Pieces.*	Value. *Doll. Cts.*
1793... }			1822.....	3,813,788	915,509 89
1794... }	1,834,420	453,541 80	1823.....	2,166,485	967,975 00
1795... }			1824.....	4,786,894	1,859,297 00
1796.....	1,219,270	192,129 40	1825.....	5,178,760	1,735,894 00
1797.....	1,095,165	125,524 29	1826.....	5,774,434	2,110,679 25
1798.....	1,368,241	545,698 00	1827.....	9,097,845	3,024,342 32
1799.....	1,365,681	645,906 68	1828	6,196,853	1,741,381 24
1800.....	3,337,972	571,335 40	1829.....	7,674,501	2,306,875 50
1801.....	1,571,390	510,956 37	1830.....	8,357,191	3,155,620 00
1802.....	3,615,869	516,075 83	1831.....	11,792,284	3,923,473 60
1803.....	2,780,830	370,698 53	1832.....	9,128,387	3,401,055 00
1804.....	2,046,839	371,827 94	1833.....	10,307,790	3,765,710 00
1805.....	2,260,361	333,239 48	1834.....	11,637,643	7,388,423 00
1806.....	1,815,409	801,084 00	1835.....	15,996,342	5,668,667 00
1807.....	2,731,345	1,044,595 96	1836.....	13,719,333	7,764,900 00
1808.....	2,935,888	982,055 00	1837.....	13,010,721	3,299,898 00
1809.....	2,861,834	884,752 53	1838.....	15,336,518	3,979,217 00
1810.....	3,056,418	1,155,868 50	1839.....	9,260,345	3,021,170 11
1811.....	1,649,570	1,108,740 95	1840.....	7,053,084	2,260,667 50
1812.....	2,761,646	1,115,219 50	1841.....	5,051,831	1,304,198 67
1813.....	1,755,331	1,102,271 50	1842.....	7,483,180	2,426,351 50
1814.....	1,833,859	642,435 80	1843.....	10,405,233	6,530,043 20
1815.....	69,867	20,483 00	1844.....	5,460,967	2,843,447 52
1816.....	2,888,135	56,785 57	1845.....	9,283,607	3,416,800 54
1817.....	5,163,967	647,267 50	1846.....	7,447,335	3,623,443 00
1818.....	5,537,084	1,345,064 50	1847.....	11,545,278	14,348,366 69
1819.....	5,074,723	1,425,325 00			
1820.....	6,492,509	1,864,786 20	Total	299,229,601	116,635,153 11
1821.....	3,139,249	1,018,977 45			

By an Act of Congress of February, 1793, all foreign gold and silver coins, (except Spanish milled dollars, and parts of dollars,) which were received for moneys due to the United States, were required to be coined anew previous to their circulation; and under this Act the amount received at the Philadelphia Mint, during the year 1847, was $9,829,404.

Since all value is regulated by the standard of gold and silver, it may be proper to exhibit a few general facts respecting their production in different parts of the globe. It appears that for three centuries the greater part of the gold and silver which was used by civilized nations was drawn from America—Mexico and Peru yielding the largest amount of silver, and New Granada, Brazil, and Chili the largest amount of gold. The production of the precious metals in Mexico and South America, during the last thirty years, has decreased, in consequence, probably, of the revolutions which have convulsed those countries; while within that period the amount produced in the United States has been

greatly increased. The quantity produced in Europe and Asia has been vastly augmented since the commencement of the present century. The largest supply of gold, exceeding in amount that which is furnished from all other parts of the globe, is obtained from the Russian dominions—the ranges of the Ural and Altain Mountains containing vast depositories of the precious metals. The total amount of the production of gold in America, from its discovery to January, 1846, is estimated at $6,810,290,000. Recent discoveries seem, moreover, to have developed extensive mines in the territory of California. By the official report of the Director of the Mint, it appears that the total amount of gold from the mines of the United States, which has been deposited for coinage in this institution, is $12,741,653. We subjoin the following statement of the annual amount of deposits of gold at the Mint of the United States and its branches, from mines in the United States, down to the present period:—

STATEMENT OF THE ANNUAL AMOUNTS OF DEPOSITS OF GOLD FOR COINAGE AT THE MINT OF THE UNITED STATES AND ITS BRANCHES, FROM MINES IN THE UNITED STATES.

DEPOSITED AT THE UNITED STATES MINT.

Years.	Virginia.	North Carolina.	South. Carolina.	Georgia.	Tennessee.	Alabama.	Various sources.	Total at the United States Mint.
1824	.....	$5,000	.....	.....	.....	.....	.....	$5,000
1825	.....	17,000	.....	.....	.....	.....	.....	17,000
1826	.....	20,000	.....	.....	.....	.....	.....	20,000
1827	.....	21,000	.....	.....	.....	.....	.....	21,000
1828	.....	46,000	.....	.....	.....	.....	.....	46,000
1829	$2,500	134,000	$3,500	.....	.....	.....	.....	140,000
1830	24,000	204,000	26,000	$212,000	.....	.....	.....	466,000
1831	26,000	294,000	22,000	176,000	$1,000	.....	$1,000	520,000
1832	34,000	458,000	45,000	140,000	1,000	.....	.....	678,000
1833	104,000	475,000	66,000	216,000	7,000	.....	.....	868,000
1834	62,000	380,000	38,000	415,000	3,000	.....	.....	898,000
1835	60,400	263,500	42,400	319,900	100	.....	12,000	698,500
1836	62,000	148,100	55,200	201,400	300	.....	.....	467,000
1837	52,100	116,900	29,400	83,600	.....	.....	.....	282,000
1838	55,000	66,000	13,000	36,000	1,500	.....	200	171,700
1839	57,600	53,500	6,300	20,300	300	$500	.....	138,500
1840	38,995	36,804	5,319	91,113	104	4,431	.....	176,766
1841	25,736	76,431	3,440	139,796	1,212	1,863	.....	248,478
1842	42,163	61,629	223	150,276	.....	5,579	13,717	273,587
1843	48,148	62,873	5,099	56,619	2,788	3,786	415	180,728
1844	40,595	194,917	11,856	30,739	2,240	12,298	2,377	295,022
1845	86,783	365,886	5,386	17,325	3,202	6,472	4,328	489,382
1846	55,538	286,105	100,641	13,601	2,642	7,542	.....	466,069
1847	67,736	99,491	1,102	10,547	2,511	2,022	.....	183,409
	$945,294	$3,886,136	$479,866	$2,330,246	$28,899	$45,492	$34,237	$7,750,141

STATEMENT OF THE ANNUAL AMOUNT OF DEPOSITS OF GOLD FOR COINAGE—CONTINUED.

DEPOSITED AT THE BRANCH MINTS.

Years.	Branch mint at Charlotte, North Carolina.	Branch mint at Dahlonega, Georgia.	Branch mint at New Orleans.	Total at the branch mints.	Total deposits of U. States gold.
1838.....	$127,000	$135,700	$700	$263,400	$435,100
1839.....	126,836	113,035	6,869	246,740	385,240
1840.....	124,726	121,858	3,835	249,419	526,185
1841.....	129,847	161,974	1,818	293,639	542,117
1842.....	174,508	323,372	5,630	503,510	777,097
1843.....	272,064	570,080	22,573	864,717	1,045,445
1844.....	167,348	479,794	25,036	672,178	967,200
1845.....	.....	498,632	20,313	518,945	1,008,337
1846.....	196,381	455,149	21,758	673,288	1,139,357
1847.....	344,054	352,366	9,256	705,676	889,085
Total.....	$1,662,764	$3,211,960	$116,788	$4,991,512	$12,741,653

In concluding this paper upon the coinage of the United States, we would remark that the law to which we have referred, requiring the recoining of all money paid here for moneys due to the government, excepting Spanish dollars and their parts, has caused a vast amount of this species of coin to be circulated. It is also, doubtless, the fact, that the coinage from our own mines will in future time be greatly augmented. The reports from the Mint show that the amount coined during the year 1847 is nearly double that of any previous year, and that there was a much greater proportion of gold to silver. The mining of gold in the southern part of the country, which has been comparatively but recently commenced, is destined, we doubt not, to be rapidly extended; and to this may be added the silver from those mines which had recently been discovered upon the shores of Lake Superior. The resources of the country in the precious metals are doubtless extensive; and it is hardly too much to allege that the visions of the early explorers of our coasts, who anticipated the product of mines of gold and silver as the reward of their toil, have been already, in some small measure, realized.

DEBT AND FINANCES OF INDIANA.

The report of the Auditor of Indiana gives the following statistics of the State debt:—

Public debt 1st July, 1847, was	$11,048,000 00
Surrendered up to 1st July, 1848, under the act of January, 1846	9,158,000 00
Outstanding	$1,890,000 00
State's one-half of principal of bonds surrendered	4,579,000 00
State's one-half of interest on bonds with 1 per cent of principal, with one-half of the coupons added	1,642,617 50
Total of State's half up to July 1, 1848	$6,221,617 50
Canal's one-half of principal of bonds	4,579,000 00
Canal's one-half of interest on bonds surrendered	1,351,200 00
Canal's one-half of coupons belonging to bonds	9,275 00
Total of canal's one-half up to July 1, 1848	$5,939,475 00

The amount of the several stocks issued under the act for liquidating the public debt up to July 1, 1848, is as follows:—

5 per cent State stock	$4,579,000 00
2½ " "	1,642,617 50
5 per cent preferred canal stock	4,079,500 00
5 " deferred "	499,500 00
2½ per cent special preferred canal stock	1,213,625 00
2½ " " deferred "	146,850 00
Total of stocks issued to July 1, 1848	$12,161,092 50

Of the foregoing, the State is paying interest only on her 5 per cent State stock, at the rate of 4 per cent. After the year 1853, the rate of interest on this will be 5 per cent.

After 1853, the 2½ per cent State stocks will draw interest at that rate.

The remaining stocks are thrown upon the canal, and their redemption, principal and interest, depends upon the receipts from the canal, in accordance with the provisions of the act above referred to.

The amount of interest paid on the State debt in 1847 and 1848 was $269,770. The amount of domestic debt $618,270, of which only $324,820 is to be met by the State revenue. The annual revenue of the State, including a portion of previous arrearage, is $421,748 70, being $50,401 67 more than the year before. The semi-annual interest on the State debt was paid on the 1st of July last, the deficiency in the treasury having been made up by a loan from the Sinking Fund and the branches of the State Bank. It is designed to make up any deficiency that may exist in January and July of next year in the same way.

According to the estimate of the Auditor, after making all the ordinary expenditures

during the current fiscal year, and after redeeming the estimated amount of $100,000 of Treasury Notes, principal and interest, there will be left applicable to the payment of the interest on the public debt $206,000, from which deduct the loan for the interest of July, 1848, $40,000, also the probable sum needed to pay the interest and exchanges for January, 1849, $95,000, and the same amount for July, 1849, $95,000, equal to $230,000. This would leave a deficit next July of only $24,000. This small balance, it is safe to presume, would be overcome by the increased receipts into the treasury by the 1st January following. But as the revenue is actually payable until the latter part of the winter, it is calculated that such would be the result by the 1st of July, 1850.

COINAGE OF THE BRITISH MINT.

In the Merchants' Magazine, Vol. XIX., p. 565, we published a paragraph touching the coinage of the British mint in 1847, derived from Wilmer and Smith's Liverpool Times, but purporting to be "according to a Parliamentary return." It struck us at the time that the statement was erroneous,* and we therefore gladly avail ourselves of the "*Companion to the British Almanac for* 1849"—authority that can be relied upon for a complete statement of the value arising from coinage in Great Britain during the eleven years, from 1837 to 1847, inclusive. The statements, in the paragraph referred to, regarding silver are equally exaggerated, as will be seen by the following table, derived from the British Almanac:—

STATEMENT OF THE VALUE ARISING FROM THE COINAGE DURING THE ELEVEN YEARS FROM 1837 TO 1847.

Years.	TOTAL WEIGHT COINED IN EACH YEAR. Gold. *Lbs.*	Silver. *Lbs.*	Copper. *Tons.*	*Cwts.*	TOTAL VALUE COINED IN EACH YEAR. Gold.	Silver.	Copper.
1837.....	26,818	23,064	22	15	£1,253,071	£76,111	£5,096
1838.....	61,110	60,960	7	00	2,855,364	101,168	1,568
1839.....	10,793	120,980	32	00	504,303	399,235	7,168
1840.....	.....	65,580	14	00	.....	216,414	3,136
1841.....	8,100	29,144	33	00	378,472	96,175	7,392
1842.....	127,919	58,440	8	00	5,977,015	204,732	1,792
1843.....	141,420	83,720	68	10	6,607,850	276,276	15,344
1844.....	76,275	189,900	36	17	3,563,949	626,670	8,207
1845.....	90,842	196,260	31	00	4,244,506	647,658	6,944
1846.....	92,775	196,560	29	00	4,334,697	559,548	6,496
1847.....	110,400	38,100	40	00	5,158,440	125,730	4,960
Total.....	746,452	1,062,708	322	2	29,886,457	2,440,614	43,743
Tons.....	373	431¼	322	2	Total value.....		£38,275,486

SILVER FROM THE CONGESBERG SILVER MINES, IN NORWAY.

From the Swedish official paper of the 27th of October, 1848, we learn that, on the 14th of September, the workmen employed in the king's mine, which is one of the Congesberg silver mines, in Norway, found a lump of pure native silver, weighing 208 pounds; and that, on the 6th October, another lump of native silver, equally pure in quality, of no less weight than 436 pounds, was dug out of the same mine. It is a fact worthy of being recorded, that about twenty years ago this mine was offered for sale in London for the sum of £10,000; but the capitalists of that day had not sufficient confidence in the treasures it was represented to possess, to give this comparatively small price. Subsequently, the Norwegian government were strongly urged by the scientific of that country to work the mine at the expense and for the benefit of the state. The operations were commenced and prosecuted with vigor, and for a considerable number of years this mine has annually yielded to the government of Norway a much larger revenue than the price which could not previously be obtained in England for the mine itself.

* In the Manual issued by Eckfeldt & Dubois, of the United States Mint, in 1842, it is shown that the entire coinage of Great Britain for 25 years preceding 1841 was but £59,000,000, and that the greatest amount of gold ever coined in one year was £9,000,000.

CONDITION OF THE STATE BANK OF INDIANA.

We give below an official, summary statement of the resources and liabilities of the State Bank of Indiana on the 18th of November, 1848:—

RESOURCES.

	1848.	1846.
Notes discounted	$1,647,622 59	$1,659,358 40
Bills of exchange	1,791,321 88	1,359,385 17
Suspended debt	412,601 91	577,667 46
Banking houses, real estate	382,076 71	349,787 74
United States and Indiana bonds	71,000 00	36,000 00
Treasury notes, State of Indiana	271,105 00	419,310 00
Funds in New York, Philadelphia, &c.	394,024 72	370,383 87
Due from other banks than eastern	229,039 54	432,731 54
Remittances and other resources	231,156 03	113,577 99
Branch balances	148,162 39	63,534 19
Gold and silver	1,273,895 54	1,003,647 40
Notes of other banks	147,451 00	119,976 30
Total	$6,997,937 31	$6,510,289 76

LIABILITIES.

Capital stock of State of Indiana	$982,404 27	$935,854 27
" individuals	1,100,506 32	1,147,970 10
Surplus fund to cover losses	527,799 32	413,563 33
Profit and loss	105,690 76	29,954 91
Suspended interest, &c.	19,763 98	.....
Dividend undrawn	21,581 85	.....
Due to banks	82,292 96	47,886 42
Branch balances	71,417 20	73,309 12
Due sinking fund and canal trustees	80,265 69	89,535 36
Due school fund for tax	1,380 23	2,861 80
Due depositors	452,624 73	409,989 13
Notes in circulation	3,708,031 00	3,336,503 00
Less notes on hand	155,821 00	.....
Total	$6,997,937 31	$6,510,289 76

JAMES M. RAY, *Cashier.*

STATE BANK OF INDIANA, Indianapolis, Dec. 2, 1848.

MASSACHUSETTS SAVINGS BANKS.

There are in Massachusetts forty-one institutions for savings. The returns of these institutions are made up to the 30th of September, 1848, and show the following aggregates:

Number of depositors	69,894
Amount of deposits	$11,970,447 64
Public funds	1,372,622 89
Loans on public funds	25,600 00
Bank stock	2,025,721 91
Loans on bank stock	173,740 00
Deposits in banks bearing interest	91,862 44
Railroad stock	89,527 99
Loans on railroad stock	309,925 00
Invested in real estate	92,935 10
Loans in mortgage of real estate	4,171,483 67
" to county or town	1,424,086 56
" on personal security	2,410,171 68
Cash on hand	152,964 41
Rate and amount of ordinary dividend for last year	461,774 88
Average annual per cent of dividend for last 5 years	5 66
Annual expenses of the institutions	36,404 96

CONDITION OF THE BALTIMORE BANKS.

CONDENSED VIEW OF THE CONDITION OF THE BANKS OF THE CITY OF BALTIMORE ON THE FIRST OF JANUARY, 1849.

	Capital. *Dollars.*	Inv't in stocks. *Dollars.*	Discounts. *Dollars.*	Specie. *Dollars.*	Circulation. *Dollars.*	Deposits. *Dollars.*
Merchants'..	1,500,000	154,983 93	1,898,245 69	272,267 49	162,225	339,164 28
Baltimore....	1,200,000	22,126 00	1,534,759 95	237,246 00	186,526	358,232 85
Union.....	916,350	19,258 00	1,223,131 42	136,893 00	147,539	306,907 54
Far. & Plant.	600,625	.....	1,028,596 80	238,992 79	383,357	264,889 24
Mechanics'..	590,844	6,501 53	1,011,146 61	142,295 70	189,753	428,764 59
Com. & Far.	512,560	58,231 67	857,210 61	227,710 28	162,371	351,778 78
Far. & Mer..	393,560	133,150 10	445,447 13	77,700 44	121,582	117,911 37
Chesapeake.	340,577	122,654 41	463,617 80	90,454 04	89,867	261,639 17
Marine.....	310,000	73,138 80	434,689 53	73,512 29	104,681	177,268 39
Western.....	308,280	.....	595,868 35	262,331 62	255,489	166,824 42
Franklin.....	301,850	17,183 50	304,203 32	22,507 46	48,778	54,516 18
Total...	6,974,646	607,227 94	9,797,417 21	1,781,911 11	1,852,168	2,827,896 81
Jan. 1, 1848.	6,971,852	521,116 00	10,690,963 00	1,834,167 00	2,104,712	3,123,859 00
" 4, 1847.	6,969,329	647,200 00	10,082,225 00	1,814,308 00	1,986,248	3,261,999 00
" 5, 1846.	6,971,681	856,697 00	10,143,299 00	1,861,500 00	2,159,140	3,113,750 00

ASSAY OF CALIFORNIA GOLD AT THE BRANCH MINT, NEW ORLEANS.

We published, in the January number of the *Merchants' Magazine*, an official letter from R. M. PATTERSON, Director of the United States Mint in Philadelphia, to ROBERT J. WALKER, the Secretary of the Treasury, giving an account of the result of an assay of the first deposit of gold from California. We also published, in the same number, an assay made by Professor EBENEZER N. HOSFORD, of Harvard University, of a small quantity of California gold, from Feather River. It will be seen, by the following extract of a letter from WILLIAM P. HORT, Esq., dated Mint of the United States, New Orleans, December 22d, 1848, that that gentleman, an official of the New Orleans Branch Mint, has made an assay of six ounces of the California gold, which resulted as follows:—

On the 25th November I assayed about six ounces of the said gold, deposited in the form of dust, by T. A. Minard, and when melted and assayed, the total proved to be 895.

Our standard is 900 thousandths, 21.600 carats, $18 60.
Theirs, 895 " 21.480 " 18 50.

The loss in melting 92 oz. 37 dwt., was 1 oz. 63 dwt., or 2 61 per cent. I know no reason why this result should be considered extraordinary. On the 28th November I assayed Alabama gold dust of the fineness of 946 thousandths. On the 10th of the same month I assayed another specimen of 923 thousandths. In short, the title of the gold dust from that State, when well washed and unmixed, always exceeds 900 thousandths—our standard; it falls below only when the gold is alloyed with the quicksilver employed as a fluex to separate it from the ore. The California lot of gold was in the form of flat spangles; there was an alloy of 105 parts, of which 85 thousandths were estimated to be silver, and 20 thousandths mercury. This must have been a natural and not an artificial combination.

Respectfully, WM. P. HORT, *Assayer.*

HOURS OF PROTEST.

In the case of King *vs.* Holmes & Son, lately tried in the Circuit Court at Cincinnati, it was ruled that a broker had a right to protest a draft at three o'clock on the last day of grace, although the usage of brokers in the city was to keep their offices open until five o'clock, P. M. To this charge the plaintiff excepted, and will take the case to the Supreme Court. On this decision the New Orleans *Commercial Bulletin* remarks:—"Where a draft or note is held by a bank, the rule and custom is not to protest it until after bank hours; but we think there is no doubt, that a private holder of a bill or note can demand payment at any time during business hours of the day it matures, and to protest it forthwith if such payment is not made."

COMMERCIAL STATISTICS.

THE LUMBER TRADE OF BANGOR, MAINE.

To Freeman Hunt, Esq., *Editor of the Merchants' Magazine, etc.*

Dear Sir:—Annexed, I forward you a statement of the quantity of lumber surveyed at Bangor for the season of 1848, which will, I hope, be acceptable to you and the readers of your valuable journal. Yours, truly, Samuel Harris.

Bangor, Me., *December* 22, 1848.

LUMBER SURVEYED AT BANGOR, ME., DURING THE YEAR 1848.

Surveyors.	Boards, Dims, Plank, Joist, &c.	Ton Timber. *Tons. 40ths.*	Ranging Timber.
D. Kimball	8,790,059	.....	.....
J. Allen	10,906,358	.....	.....
J. Lincoln	6,176,450	1,304 15	112,184
M. Fisher	7,479,796	201 12	984
N. Pierce	7,053,774	440 27	9,422
J. C. Young	11,597,674	.....	.....
G. Hammatt	10,786,387	68 10	101
M. Webster	11,106,504	26 13	.....
J. Short	5,491,659	.....	.....
J. Norris	12,060,882	.....	.....
A. Pratt	8,985,370	.....	.....
J. Young	12,186,524	.....	.....
J. Oakes	4,571,176	78 16	29,345
A. Smith	7,710,140	.....	.....
A. Young	10,223,360	.....	.....
H. Fisher	5,259,986	78 16	5,521
W. T. Pearson	10,862,401	12 04	7,485
H. Atkins	3,048,948	.....	.....
J. Webster	7,886,932	.....	.....
S. Emery	6,890,074	.....	.....
E. H. Burr	2,607,358	.....	.....
M. T. Burbank	2,777,461	.....	.....
Z. Rogers	3,274,729	.....	.....
B. Goodwin	3,784,206	.....	.....
J. McFaden	382,602	.....	.....
N. B. Wiggin	9,161,633	.....	.....
P. Haines	6,304,322	781 05	16,095
L. B. Ricker	6,311,777	.....	.....
M. Rowe	1,228,845	.....	.....
T. F. Rowe	790,029	.....	.....
J. Chamberlain	3,115,303	.....	.....
C. W. Pierce	4,119,780	.....	.....
Total	212,932,499	2,990 38	181,137

SHIP-BUILDING IN PORTLAND.

The number of vessels of each class built in the Portland (Maine) district during the last four years, has been—

	1845.	1846.	1847.	1848.		1845.	1846.	1847.	1848.
Ships	2	3	11	8	Sloops	...	1	1	...
Barks	14	22	18	16	Steamboats	...	...	...	1
Brigs	14	12	8	13					
Schooners	11	11	12	7	Total	41	49	50	45

Of the 12,252 tons built in 1848, all but about 2,000 are owned in that district.

TRADE AND COMMERCE OF BALTIMORE IN 1848.

In reference to the external character which the city and port of Baltimore have assumed during the year 1848, its buildings and commercial marine are favorable, as the editor of Lyford's "*Commercial Journal*" infers, from the fact that 1,920 buildings were erected, of which 1,635 were of brick and within the limits of direct taxation. This has been a greater increase than for any other previous year.

To her commercial marine have been added 69 vessels, not numerically so large as in other years, but the amount of tonnage exceeded any previous year from the more large vessels that were built. The following shows the result:—

	AMERICAN VESSELS ARRIVED.				AMERICAN VESSELS CLEARED.			
	Ships.	Barks.	Brigs.	Sch'nrs.	Ships.	Barks.	Brigs.	Sch'nrs.
Swedish West Indies	...	.	...	...	...	...	1	...
Danish West Indies	...	1	4	6	...	3	5	16
Holland	8	1	...	...	12	2	...	...
Hanse Towns	3	7	...	...	2	...	...	...
England	21	.	...	...	30	14	1	...
Ireland	1	1	...	...	3	8	5	...
British Guiana	...	3	2	1	...	2	8	4
British West Indies	...	1	22	28	...	3	55	55
British North American cols.	...	1	3	4	...	2	8	9
France	...	1	...	...	4	1	1	...
French West Indies	...	.	1	...	...	...	2	3
Hayti	...	.	...	1	1	...	2	2
Cuba	...	2	31	26	...	2	5	5
Other Spanish West Indies	...	.	...	...	...	3	20	14
Porto Rico	...	4	39	23	...	3	20	14
Venezuelian ports	...	1	6	11	...	1	7	6
Brazilian ports	2	32	27	2	1	27	39	15
Monte Video	...	4	3	...	...	7	1	1
Chilian ports	...	1	...	...	1	3	1	...
Peruvian ports	...	2	1	...	...	...	2	...
Africa	...	2	...	1	...	2	1	2
Honduras	...	1	...	5	...	...	...	2
New Grenada	...	4	...	...	...	...	1	1
Sicily	...	4	...	...	...	...	...	...
Madeiras	...	.	...	...	...	...	2	...
Portugal	1	.	...	...	...	...	...	...
Spain	...	.	1	3	...	...	...	...
Gibraltar	...	.	...	...	...	...	1	2
Mexico	...	.	...	...	...	...	1	...
Total	36	69	139	115	53	80	168	137

FOREIGN VESSELS ARRIVED AND CLEARED AT BALTIMORE.

	VESSELS ARRIVED.				VESSELS CLEARED.			
	Ships.	Barks.	Brigs.	Sch'nrs.	Ships.	Barks.	Brigs.	Sch'nrs.
British	3	1	40	31	4	2	41	34
Hanseatic	17	5	4	...	21	8	6	...
Hanoverian	1	.	1	...	1	.	1	...
Dutch	...	.	1	...	...	.	...	...
French	1	.	2	...	2	.	1	...
New Granadian	...	.	...	1	...	.	...	1
Danish	1	.	2	...	1	1	...	1
Venezuelian	...	1	...	...	...	1	...	...
Swedish	...	.	...	...	...	.	1	...
Russian	...	.	...	...	1	.	...	...
Total	23	7	50	32	30	12	51	36
Add American	36	69	139	115	53	80	168	137
" coastwise	42	166	233	974	...	...	....	....
Total	101	242	422	1,121	83	92	219	173

EXPORTS OF DOMESTIC PRODUCE FROM THE PORT OF BALTIMORE TO EACH FOREIGN PORT IN 1848

The following table, prepared expressly for the "*Commercial Journal and Lyford's Price Current*," comprises the names of all the foreign ports to which all the principal articles of domestic produce were exported from the port of Baltimore during the year 1848:

TO SWEDISH WEST INDIES.

Beef.....bbls.	15	Butter.....lbs.	2,650	Indian meal.bbls.	448
Pork.....	88	Flour.....bbls.	1,234	Biscuit.....	20
Lard.....lbs.	3,682	Indian corn..bush.	282		

DANISH WEST INDIES.

Beef.....bbls.	504	Butter.....lbs.	22,827	Indian meal.bbls.	3,594
Pork.....	311	Cheese.....	19,333	Biscuit.....	475
Bacon.....lbs.	22,664	Flour.....bbls.	23,353	" .....kegs	329
Lard.....	68,004	Indian corn..bush.	2,294	Rice.....trcs.	149

HOLLAND.

Bacon.....lbs.	8,750	Flour.....bbls.	246	Cotton.....lbs.	20,800
Lard.....	116,953	Tobacco....hhds.	12,071		

BELGIUM.

Tobacco.....hhds.	131

HANSE TOWNS.

Beef.....bbls.	440	Lard.....lbs.	159,617	Rice.....trcs.	30
Pork.....	1,436	Flour.....bbls.	96	Tobacco....hhds.	13,918
Bacon.....lbs.	31,340				

ENGLAND.

Beef.....bbls.	14,001	Cheese.....lbs.	136,610	Indian meal.bbls.	3,012
Pork.....	27,353	Wheat.....bush.	139,275	Tobacco....hhds.	260
Bacon.....lbs.	8,250,688	Flour.....bbls.	70,701	Cotton..... lbs.	53,053
Lard.....	2,255,949	Indian corn..bush.	376,393		

IRELAND.

Beef.....bbls.	205	Cheese.....lbs.	11,813	Indian corn..bush.	304,730
Pork.....	2,188	Wheat.....bush.	33,778	" meal.bbls.	3,723
Bacon.....lbs.	278,194	Flour.....bbls.	5,383	Biscuit.....	714
Lard.....	239,569				

GIBRALTAR.

Flour.....bbls.	1,197	Biscuit.....bbls.	40	Rice.....trcs.	10
Indian corn..bush.	6,505	" .....kegs	20	Cotton.....lbs.	88,313

BRITISH GUIANA.

Beef.....bbls.	295	Butter.....lbs.	10,597	Indian meal.bbls.	2,650
Pork.....	1,072	Cheese.....	8,888	Biscuit.....	1,619
Bacon.....	3,769	Flour.....bbls.	10,665	Rice.....trcs.	55
Lard.....	17,814	Indian corn...bush.	2,982	Tobacco....hhds.	11

BRITISH WEST INDIES.

Beef.....bbls.	1,173	Cheese.....lbs.	88,357	Biscuit.....bbls.	6,654
Pork.....	5,446	Wheat.....bush.	988	" .....kegs	1,020
Bacon.....lbs.	106,834	Flour.....bbls.	81,865	Rice.....trcs.	674
Lard.....	184,294	Indian corn..bush.	60,685	Tobacco....hhds.	90
Butter.....	211,792	" meal.bbls.	24,446		

BRITISH NORTH AMERICAN COLONIES.

Beef.....bbls.	228	Cheese.....lbs.	2,134	Indian meal..bbls.	8,898
Pork.....	1,909	Wheat.....bush.	11,548	Biscuit.....	2,891
Bacon.....lbs.	20,469	Flour.....bbls.	30,366	Rice.....trcs.	10
Butter.....	43,963	Indian corn..bush.	9,974		

FRANCE.

Tobacco.....hhds.	5,661	Cotton.....lbs.	64,197

FRENCH WEST INDIES.

Beef.....bbls.	341	Cheese.....lbs.	546	Indian corn..bush.	450
Lard.....lbs.	4,386	Flour.....bbls.	3,032	Rice.....trcs.	89
Butter.....	1,499				

HAYTI.

Beef.....bbls.	8	Lard.....lbs.	11,573	Flour.....bbls.	1,193
Pork.....	25	Butter.....	1,903	Rice.....trcs.	3
Bacon.....lbs.	1,636	Cheese.....	4,355	Tobacco.....hhds.	8

CUBA.

Beef.....bbls.	41	Butter.....lbs.	6,194	Indian meal.bbls.	25
Pork.....	92	Cheese.....	2,848	Biscuit.....	146
Bacon.....lbs.	15,455	Flour.....bbls.	963	Rice.....trcs.	157
Lard.....	24,667				

PORTO RICO.

Beef.....bbls.	23	Cheese.....lbs.	39,750	Biscuit.....bbls.	819
Pork.....	1,225	Flour.....bbls.	6,980	" .....kegs	1,476
Bacon.....lbs.	42,936	Indian corn...bush.	139	Rice.....trcs.	418
Lard.....	207,054	" meal.bbls.	2,972	Tobacco....hhds.	12
Butter.....	45,187				

VENEZUELIAN PORTS.

Beef.....bbls.	77	Cheese.....lbs.	9,413	Biscuit.....bbls.	76
Pork.....	50	Flour.....bbls.	10,442	" .....kegs	50
Bacon.....lbs.	10,154	Indian corn.bush.	1,608	Rice.....trcs.	171
Lard.....	77,685	" meal...bbls.	1,574	Tobacco....hhds.	40
Butter.....	16,494				

BRAZILIAN PORTS.

Beef.....bbls.	265	Butter.....lbs.	5,930	Indian meal...bbls.	200
Pork.....	142	Cheese.....	4,252	Biscuit.....	84
Bacon.....lbs.	104,665	Flour.....bbls.	131,442	" .....kegs	279
Lard.....	191,794	Indian corn.bush.	400	Tobacco....hhds.	62

MONTE VIDEO.

Beef.....bbls.	20	Butter.....lbs.	12,658	Biscuit.....bbls.	100
Pork.....	20	Cheese.....	608	" .....kegs	230
Bacon.....lbs.	47,301	Flour.....bbls.	19,094	Tobacco....hhds.	35
Lard.....	47,529				

PERUVIAN PORTS.

Beef.....bbls.	40	Lard.....lbs.	3,432	Biscuit.....kegs.	115
Pork.....	50	Flour.....bbls.	200	Tobacco....hhds.	18
Bacon.....lbs.	6,264				

CHILIAN PORTS.

Beef.....bbls.	128	Lard.....lbs.	30,102	Flour.....bbls.	356
Pork.....	480	Butter.....	4,538	Biscuit.....	61
Bacon.....lbs.	41,587	Cheese.....	668	" .....kegs	325

AFRICA.

Beef.....bbls.	343	Butter.....lbs.	4,740	Biscuit.....bbls.	60
Pork.....	163	Flour.....bbls.	434	Tobacco....hhds.	132
Bacon.....lbs.	45,027	Indian meal.....	16		

HONDURAS.

Beef.....bbls.	15	Butter.....lbs.	748	Flour.....bbls.	105
Pork.....	10	Cheese.....	1,400	Rice.....trcs.	10
Bacon.....lbs.	360	Wheat.....bush.	1,017	Tobacco....hhds.	10

NEW GRANADA.

Pork.....bbls.	8	Flour.....bbls.	15	Biscuit.....kegs	50
Bacon.....lbs.	202	Biscuit.....	10	Tobacco....hhds.	4
Lard.....	183				

MADEIRA.

Flour.....bbls.	532	Indian corn.....bush.	12,711

TRADE AND COMMERCE OF BOSTON FOR 1848:

COMPARED WITH PREVIOUS YEARS.

The arrivals of shipping from foreign ports at the port of Boston for the last nine years have been as follows:—

ARRIVALS AND CLEARANCES AT BOSTON FROM 1840 TO 1848.

Years.	ARRIVALS. Ships.	Barks.	Brigs.	Sch'nrs.	Total.	CLEARANCES. Ships.	Barks.	Brigs.	Sch'nrs.	Total.
1848	243	310	902	1,646	3,101	159	315	887	1,449	2,810
1847	182	262	698	1,613	2,755	116	228	626	1,556	2,526
1846	146	213	531	1,172	2,052	95	192	480	1,214	1,981
1845	159	215	550	1,406	2,330	102	207	514	1,344	2,167
1844	154	217	609	1,221	2,199	92	203	520	1,166	1,981
1843	127	153	524	946	1,750	78	149	477	883	1,587
1842	172	170	498	910	1,750	93	142	440	907	1,582
1841	194	150	584	735	1,743	104	124	502	839	1,569
1840	162	117	598	771	1,648	80	87	476	694	1,337

COASTWISE ARRIVALS AND CLEARANCES OF BOSTON.

ARRIVALS.

1848.	1847.	1846.	1845.	1844.	1843.	1842.	1841.	1840.
6,118	7,125	6,775	5,631	5,372	4,944	4,024	4,574	4,336

CLEARANCES.

3,187	3,198	2,672	3,054	2,830	2,497	2,298	2,841	2,815

DOMESTIC EXPORTS OF BOSTON IN 1848.

There has been a good demand for export during the year, owing to the low range of prices which have prevailed, and the operations of the trade have also been to a fair extent. By the following statement, derived from the Boston *Shipping List*, it will be observed that a large portion of the exports have been to the East Indies and Valparaiso, and the total exports show a considerable increase over previous years:—

	Bales and cases.	Value.		Bales and cases.	Value.
East Indies	10,449	$484,250 26	Fayal	51	$2,279 42
Calcutta	4,109	197,946 26	Truxillo	108	10,452 77
Canton	9,207	413,249 83	Cape Haytien	47	3,518 43
Hong Kong	943	58,710 06	Gonaives	48	4,153 56
Batavia	805	34,407 33	Jacmel	19	1,172 15
Sumatra	100	5,562 13	Port au Prince	11	1,150 00
Valparaiso	15,456	575,186 32	Aux Cayes	38	3,164 08
Zanzibar	750	30,925 27	St. Thomas	4	218 03
W. C. Cen. America	1,151	34,500 00	St. Peters	76	4,490 87
River la Plata	368	15,350 31	Bahamas	27	1,584 61
Monte Video	150	6,666 93	Nassau	7	385 99
Buenos Ayres	1,033	41,036 56	Surinam	3	256 94
Rio Janeiro	1,346	67,516 65	Belize	70	3,888 00
Africa	231	11,356 77	Turks Island	5	540 90
Hobart Town	125	5,579 39	Mansanilla	4	232 00
Sandwich Islands	470	43,651 95	Bermuda	1	50 82
Pernambuco	419	19,706 20	Eleuthera	6	409 00
Smyrna	1,102	52,426 90	Halifax	42	2,700 00
Gibraltar	42	1,648 12	Miramachi	2	42 00
Constantinople	7	513 67	Yarmouth	2	42 00
Cape de Verd Islands	352	18,002 46	Cumberland	5	239 13
Genoa	50	2,400 00			
Vera Cruz	1,469	91,827 83	Total	50,952	2,266,392 84
Sisal	242	12,000 94			

In 1847, exports in bales, etc., amounted to 35,010; in 1846, to 28,484; and in 1845, to 32,205.

BALES OF COTTON IMPORTED INTO BOSTON.

1848.....	239,958	1843.....	151,090	1838.....	96,636	1833.....	54,139
1847.....	198,932	1842.....	119,670	1837.....	82,684	1832.....	60,011
1846.....	193,549	1841.....	131,860	1836.....	82,885	1831.....	53,810
1845.....	187,619	1840.....	138,709	1835.....	80,709	1830.....	46,203
1844.....	175,529	1839.....	94,361	1834.....	60,312		

The exports from this port to foreign ports for three years past have been as follows:—1848, 7,766 bales; 1847, 6,477 bales; 1846, 7,187 bales.

RECEIPTS OF BREADSTUFFS, ETC., AT BOSTON.

Years.	Flour. *Bbls.*	Corn. *Bush.*	Oats. *Bush.*	Rye. *Bush.*	Shorts. *Bush.*
1848.....	935,578	3,338,293	384,368	65,189	48,988
1847.....	1,027,719	2,584,528	521,738	50,256	83,626
1846.....	750,432	2,374,484	414,417	17,160	96,711
1845.....	730,138	2,371,406	548,583	24,184	65,530
1844.....	686,586	1,960,663	508,282	30,352	105,025
1843.....	610,964	1,540,306	468,032	25,953	40,750
1842.....	609,460	1,835,163	393,474	39,122	91,723
1841.....	574,223	2,044,129	356,502	34,128	43,047
1840.....	619,261	1,868,431	437,948	48,026	57,037
1839.....	451,667	1,607,492	439,141	48,624	52,755
1838.....	370,704	1,574,038	443,657	102,473	49,082

FLOUR RECEIVED AT BOSTON FROM THE WESTERN RAILROAD.

	1844.	1845.	1846.	1847.	1848.
January.....	322½	2,624	11,252	21,906	15,027
February.....	2,551½	3,877	4,639	20,908	9,011½
March.....	1,136½	2,933	3,695	14,228	5,423
April.....	2,162	5,726	3,557½	11,748½	6,947
May.....	19,835	18,622	29,282	66,469	38,846½
June.....	15,129	7,898	27,120	72,098½	38,838
July.....	10,710½	6,673½	26,112	60,629	39,023
August.....	15,257	11,046	17,624	36,803	25,386
September.....	12,141	19,001	16,996	47,527	35,275
October.....	22,889½	28,960	22,556	72,904	61,172½
November.....	40,325	57,623	44,420	62,574	71,332½
December.....	11,837½	18,061½	25,098	26,701½	18,090½
Total.....	154,297	183,045	232,951½	514,676½	364,372½

RECEIPTS OF TAR, TURPENTINE, OIL, AND MOLASSES, AT BOSTON.

Years.	Tar. *Bbls.*	Turpentine. *Bbls.*	Sperm. *Bbls.*	Whale. *Bbls.*	Molasses. *Hhds.*
1848.....	19,959	23,006	107,986	280,656	77,675
1847.....	16,228	56,729	121,410	320,645	81,232
1846.....	16,542	34,728	95,217	207,493	71,595
1845.....	16,597	40,177	157,917	272,730	64,631
1844.....	14,410	41,579	139,594	262,047	77,426
1843.....	13,535	38,042	166,985	206,727	57,660
1842.....	10,911	19,610	165,637	161,041	63,675
1841.....	17,899	28,078	159,304	207,348	73,992
1840.....	12,197	26,740	157,791	207,908	78,062
1839.....	21,214	25,396	142,336	229,783	79,545
1838.....	14,107	16,362	132,356	226,552	72,267

INSPECTIONS OF POT AND PEARL ASHES FROM 1845 TO 1848.

1848.		1847.		1846.		1845.	
Casks.	Lbs.	Casks.	Lbs.	Casks.	Lbs.	Casks.	Lbs.
1,407	597,711	1,225	544,631	1,783	801,094	1,818	793,719

IMPORTS OF COFFEE INTO BOSTON FROM 1843 TO 1848.

1848.	1847.	1846.	1845.	1844.	1843.
16,752,353	27,532,522	29,036,337	17,298,700	26,259,989	16,071,665

VALUE OF IMPORTS, AND DUTIES PAID AT PHILADELPHIA.

The following statement, showing the value of the imports into the port of Philadelphia, and the duties accruing thereon to the United States, as prepared from official records, is derived from the Philadelphia *Commercial List* :—

Years.	Value of imports.	Duties.	Years.	Value of imports.	Duties.
1830.....	$9,525,893	$3,537,516 10	1840.....	$8,624,484	$1,517,206 70
1831.....	11,673,755	4,372,525 98	1841.....	9,948,598	1,983,681 64
1832.....	10,048,195	3,500,292 50	1842.....	6,201,177	1,812,842 82
1833.....	11,153,757	2,985,095 50	1843.....	4,916,535	1,437,837 84
1834.....	10,686,078	2,110,477 32	1844.....	8,410,864	2,981,573 15
1835.....	11,868,529	2,501,621 43	1845.....	7,491,497	2,370,515 71
1836.....	16,116,625	3,146,458 43	1846.....	8,308,615	2,608,063 16
1837.....	10,130,838	1,820,993 21	1847.....	12,145,937	2,904,748 97
1838.....	10,417,815	2,109,955 30	1848.....	unknown.	2,762,093 11
1839.....	14,753,589	2,884,984 16			

Comparative monthly statement of the cash duties received at this port during the past three years:—

	1848.	1847.	1846.
January	$374,573 98	$218,829 49	$223,161 61
February	291,277 50	210,410 10	241,794 17
March	247,991 98	237,457 81	207,890 13
April	249,778 48	275,196 73	312,593 18
May	179,909 79	242,273 61	481,980 00
June	111,117 88	161,364 77	
July	311,421 49	389,315 85	184,353 75
August	371,920 75	466,635 14	250,660 89
September	222,061 15	260,999 41	176,605 62
October	139,174 12	141,590 50	111,894 22
November	111,669 41	124,398 25	57,462 05
December	151,196 58	176,286 51	172,166 14
Total	$2,762,093 11	$2,904,748 17	$2,420,661 78

RECEIPTS OF COTTON AT PHILADELPHIA.

The following is a statement of the amount of cotton received at the port of Philadelphia during the last four years:—

	1845.	1846.	1847.	1848.
New Orleans.....bales	6,992	12,932	13,582	17,552
Mobile	5,967	2,807	3,205	1,199
Savannah	5,974	5,804	2,575	6,882
Charleston	4,640	9,557	17,377	16,752
Apalachicola	2,741	941	864	654
Other places	1,216	5,404	2,824	2,140
Total	27,627	37,637	40,427	45,149

PHILADELPHIA EXPORTS OF FLOUR, MEAL, AND GRAIN.

We have compiled from the Philadelphia *Commercial List* the following table of the exports of wheat and rye flour, corn meal, wheat, and corn from the port of Philadelphia, annually, for the last eight years:—

Years.	Wheat flour. *Bbls.*	Rye flour. *Bbls.*	Corn meal. *Bbls.*	Wheat. *Bushels.*	Corn. *Bushels.*
1841	195,555	26,886	108,822	56,571	80,266
1842	161,866	22,530	97,884	87,953	83,772
1843	128,617	22,303	106,484	32,235	74,613
1844	196,433	21,904	101,356	23,375	110,068
1845	201,956	17,098	115,101	86,098	129,256
1846	366,610	19,730	144,857	245,136	279,820
1847	420,684	20,407	300,531	523,538	1,102,210
1848	179,507	15,537	140,014	207,092	817,051

INSPECTION OF TOBACCO AT PHILADELPHIA.

The following statement of the Annual Inspection of Tobacco at the port of Philadelphia from 1832 to 1848, excepting in 1837 and 1838, during part of which time there was but little tobacco received, and of which no account was kept, is derived from the "*Philadelphia Commercial List*:"—

Years.	Kentucky.	Ohio.	Virginia.	Maryland.	Total.	Stocks.
1833	1,456	157	96	1	1,700	.....
1834	1,386	30	592	16	2,021	.....
1835	3,075	82	437	.	3,597	.....
1836		Kinds unknown.			2,960	.....
1839	2,292	17	233	10	2,552	.....
1840	4,720	83	478	8	5,298	.....
1841	5,136	138	901	65	6,210	1,178
1842	3,209	67	264	.	3,540	1,168
1843	6,299	236	198	.	6,733	3,260
1844	4,552	125	41	.	4,418	2,511
1845	4,151	31	..	.	4,182	2,511
1846	2,292	206	29	.	2,527	2,674
1847	5,463	470	..	1	5,934	3,090
1848	2,868	50	300	.	3,218	1,355

The stock of tobacco in warehouse on the 1st of January, 1849, was 1,355 hogsheads; namely, 1,134 hhds. Kentucky, 50 hhds. Ohio, and 171 hhds. Virginia.

INSPECTIONS OF QUERCITRON BARK AT PHILADELPHIA.

John W. Ryan, Esq., of Philadelphia, furnishes the following statement of the amount of Quercitron Bark inspected at that port during the year 1848, to which C. G. Childs, Esq., of the *Commercial List*, adds the amount inspected annually since 1832:—

Years.	Hhds.	Tcs.	Bbls.	Years.	Hhds.	Tcs.	Bbls.
1832	2,233	3	159	1841	5,437	84	5
1833	3,414	1	169	1842	3,852	25	11
1834	3,230	45	414	1843	2,173	27	1
1835	3,689	126	127	1844	2,872	5	1
1836	3,648	8	128	1845	2,889	26	.
1837	4,109	10	7	1846	2,826	4	.
1838	5,724	60	45	1847	4,161	54	33
1839	8,636	572	124	1848	3,241	331	8
1840	7,118	213	12				

PHILADELPHIA GRAIN MEASUREMENTS.

The following table, showing the quantity of grain, including wheat, rye, corn, barley and oats, seeds, beans, coal and salt, annually, for the last eleven years, is derived from the statements of the Public Measurers in Philadelphia:—

Years.	Wheat. *Bush.*	Corn. *Bush.*	Rye. *Bush.*	Barley. *Bush.*	Oats. *Bush.*	Seeds. *Bush.*	Beans. *Bush.*	Coal, Bit. *Bush.*	Salt. *Bush.*
1838	319,513	593,296	163,085	48,162½	272,104½	22,944⅓	1,401¼	138,712	356,407⅞
1839	449,980¼	455,370¾	115,933⅞	48,152¼	302,274½	11,593⅛	327½	86,452	291,568
1840	770,205	602,858½	133,891⅓	36,542½	298,473½	18,248⅛	698⅛	165,740	257,143
1841	467,243¾	781,278¾	51,371¼	44,336	167,508½	19,704¾	3,040⅞	118,108	326,132
1842	462,770	492,951	36,334	35,978½	194,908	25,198¾	1,616½	9,068	151,250
1843	484,384¼	518,671¼	68,013¼	20,012	372,713¼	27,773⅛	1,580⅛	131,909	174,134½
1844	526,667⅜	640,459	95,227½	58,600	375,578¾	42,358	1,402¾	97,000	217,815½
1845	792,502½	768,486¾	85,357¼	46,630½	357,677½	31,434	3,930⅝	261,838	146,451
1846	983,923	665,178	30,829	40,339	350,942	15,864	3,895	348,261	237,463
1847	947,598	1,093,264	78,972	38,210	369,171	7,528	676	268,760	246,438
1848	723,694½	1,302,318½	46,900½	62,554½	327,733¾	9,770⅝	459	357,827	200,474

VESSELS AND PASSENGERS ARRIVING AT NEW YORK IN 1848.

According to a statement made by Mr. Thorne, the boarding officer attached to the United States Revenue Department, it appears the number of vessels and passengers arriving at the port of New York from foreign countries during the year were as follows:—

Countries.	Ships.	Barks.	Brigs.	Galliots.	Sch'ners.	St. Ships.	Total.
American	552	422	670	...	274	17	1,935
British	138	160	260	...	164	36	754
French	14	15	16	...	2	1	42
Bremen	17	45	31	2	3	...	98
Swedish	2	15	23	...	4	...	44
Norwegian	1	10	16	...	3	...	30
Hamburgh	7	15	9	...	...	...	31
Danish	5	5	14	...	1	...	25
Dutch	...	6	7	...	...	...	13
Belgian	2	9	3	...	...	...	14
Portuguese	...	...	11	...	1	...	12
Prussian	1	6	2	...	2	...	11
Spanish	...	3	2	...	...	1	6
Austrian	...	2	...	...	...	...	2
Hanover	...	1	3	...	2	...	6
Sicilian	...	2	1	...	...	...	3
Russian	...	1	1	...	...	...	2
Oldenburgh	...	...	3	...	3	...	6
Neapolitan	...	...	1	...	...	...	1
Genoese	...	1	3	...	...	...	4
Brazilian	...	1	4	...	...	...	5
Oriental	...	1	...	...	1	...	2
Venezuelian	...	...	...	...	1	...	1
Sardinian	...	2	1	...	...	...	3
Knyphausen	1	...	...	...	...	...	1
Lubec	...	1	...	...	...	...	1
Granadian	...	2	2	...	4	...	8
Total							3,060

The annexed schedule shows the number of vessels and passengers arrived at the port of New York in each year since 1834:—

Years.	No. of arrivals.	No. of passengers.	Years.	No. of arrivals.	No. of passengers.
1835	2,094	35,303	1842	1,960	74,949
1836	2,291	60,541	1843	1,832	46,302
1837	2,071	57,975	1844	2,208	61,002
1838	1,790	25,581	1845	2,044	82,960
1839	2,159	48,152	1846	2,293	115,230
1840	1,953	62,797	1847	3,147	166,110
1841	2,118	57,337	1848	3,060	191,909

From this it appears that the number of arrivals during the last year is 87 less than in 1847, but 767 greater than in any previous year. The tonnage is probably greater than in 1847. The proportion of American to foreign vessels arrived is greater than in 1847—the American being only 11 less than in that year, and the foreign 76 less. The number of British vessels is 18 more than in 1847; French 15 less, Swedish 18 less, Bremen 6 more, Dutch 29 less, Belgian 8 less, Spanish 10 less, &c.

The number of passengers arrived during the past year, chiefly immigrants, 25,799 more than in 1847, and more than double that of any previous year. The number of passengers arrived in the country at large during the year 1847 was about 250,000. During the past year (1848) it was nearly 300,000.

☞ For a tabular statement of the value of the imports of specie, free and dutiable merchandise, and of the exports of specie, and foreign and domestic merchandise from the port of New York for each month of the years 1847 and 1848, see "Commercial Chronicle and Review," p. 195, of the present number of the Merchants' Magazine.

IMPORT OF VIRGINIA TOBACCO INTO THE PORT OF NEW YORK.

We are indebted to CHARLES M. CONNALLY, Esq., of the Virginia Tobacco Agency in New York, for the following statement of manufactured tobacco imported into the port of New York from the 1st of January to the 31st of December, 1848:—

IMPORTS AND STOCKS ON HAND IN 1848.

	Number of packages.	Same time last year.	Probable stock now on hand.	Same time last year.
From Richmond	62,476	75,817	.....	.....
Petersburgh	46,796	53,586	.....	.....
Norfolk	495	730	.....	.....
Other places	3,669	7,918	.....	.....
Total	113,336	138,051	30,000	36,000

RECEIPTS IN FORMER YEARS FROM 1ST JANUARY TO 31ST DECEMBER IN EACH YEAR.

Years.	Packages.	Years.	Packages.	Years.	Packages.
1839	51,579	1842	62,366	1845	105,689
1840	63,805	1843	61,676	1846	112,118
841	84,779	1844	97,536	1847	138,051

IMPORTS OF COAL INTO THE UNITED STATES:

UNDER THE TARIFFS OF 1842 AND 1846.

The following is a statement exhibiting the quantity and value of coal imported under the tariffs of 1842 and 1846, together with the amount of duty which accrued on the same, prepared in obedience to a resolution of the House of Representatives of the 14th December, 1848:—

	Tons.	Value.	Rate of duty per ton.	Duties.
From October 1, 1842, to June 30, 1843	41,163	$116,312	$1 75	$72,035 25
Year ending June 30, 1844	87,073	236,963	1 75	152,377 75
" " 1845	85,776	223,919	1 75	150,108 00
" " 1846	156,853	378,597	1 75	274,492 75
From July 1 to November 30, 1846	66,272	157,636	1 75	114,226 00
December 1, 1846, to June 30, 1847	82,749	213,349	30 p. c.	64,004 70
July 1, 1847, to June 30, 1848	196,251	461,140	"	138,342 00

Note.—The tariff of 1842 commenced operating August 30, 1842; and the tariff of 1846, December 1, 1846.

SHIP-BUILDING IN NEW YORK.

The following table shows the amount of tonnage launched and remaining on the stocks for the year ending January 1st, 1849:—

	Tonnage launched.	Tonnage on stocks.
W. H. Webb's yard	6,770	1,850
W. H. Brown's	4,800	4,800
Westervelt and McKay's	4,590	2,900
Perrine, Paterson and Stack's	4,189	1,850
Jacob Bell's	460	3,000
Dunham and Dimon's	3,900	.....
Bishop and Simonson's	4,000	.....
Jabez Williams'	1,350	400
Lawrence and Sneeden's	3,800	580
Barclay and Townsend's	1,240	.....
W. H. Collyer's	1,450	330
Total, 1849	36,649	15,710
Total, 1848	39,718	29,870
crease	3,609	14,160

RAILROAD, CANAL, AND STEAMBOAT STATISTICS.

TRADE AND COMMERCE OF THE NEW YORK CANALS.

We give below, in advance of the publication of the usual annual report of the Canal Commissioners, a summary statement of the quantities and estimated value of each article which came to the Hudson River, on all the canals of the State of New York during the years 1847 and 1848:—

STATEMENT SHOWING THE TOTAL QUANTITY AND THE ESTIMATED VALUE OF EACH ARTICLE WHICH CAME TO THE HUDSON RIVER, ON ALL THE CANALS DURING THE YEARS 1847 AND 1848.

	QUANTITIES.		ESTIMATED VALUE.	
THE FOREST.	1847.	1848.	1847.	1848.
Fur and peltry.....lbs.	556,000	557,271	$690,150	$695,838
Product of Wood.				
Boards and scantling.....feet	299,078,633	262,279,116	5,078,564	3,931,277
Shingles.....M.	101,527	104,270	405,548	338,861
Timber.....cubic feet	1,613,943	2,098,777	169,160	300,798
Staves.....lbs.	95,104,000	113,656,951	1,239,677	511,463
Wood.....cords	13,331	13,861	79,986	69,462
Ashes.....bbls.	37,538	38,229	1,135,288	1,146,870
AGRICULTURE.				
Product of Animals.				
Pork.....bbls.	76,179	87,830	1,104,673	967,230
Beef.....	71,266	60,570	718,344	605,700
Bacon.....lbs.	4,902,000	48,183,285	416,738	490,997
Cheese.....	40,844,000	23,298,526	2,860,354	3,029,169
Butter.....	22,724,000	3,729,997	3,408,751	3,359,391
Lard.....	4,348,000	9,925,663	434,780	761,767
Wool.....	12,044,000	8,529,331	3,599,963	2,304,046
Hides.....	172,000	174,925	21,611	17,494
Vegetable Food.				
Flour.....bbls.	3,952,972	3,131,095	27,057,037	17,471,401
Wheat.....bush.	4,243,832	3,116,134	5,833,901	3,677,020
Rye.....	295,119	286,919	259,950	200,310
Corn.....	6,053,845	2,953,963	5,170,970	1,834,388
Barley.....	1,523,020	1,548,197	1,279,337	1,037,293
Other grain.....	2,040,052	2,077,724	977,967	747,930
Ship stuffs.....	2,093,681	1,437,287	293,117	172,578
Peas and beans.....	106,088	75,808	106,088	75,801
Potatoes.....	108,369	115,629	51,755	58,109
Dried fruits.....bbls.	3,558,000	1,828,145	320,364	164,633
All other Agricultural Products.				
Cotton.....lbs.	474,000	174,700	35,498	11,356
Tobacco.....	1,228,000	350,935	150,735	43,127
Grass seed.....	3,308,000	1,667,030	231,518	116,693
Flax seed.....	4,128,000	1,763,393	103,219	35,268
Hops.....	1,948,000	1,597,342	188,179	159,695
MANUFACTURES.				
Domestic spirits.....galls.	1,693,076	1,606,131	473,651	385,471
Leather.....lbs.	5,168,000	4,538,951	965,204	608,842
Furniture.....	1,972,000	1,545,365	197,251	153,536
Bar and Pig lead.....	482,005	86,100	19,288	3,875
Bloom and bar iron.....	26,348,000	29,787,506	660,896	744,687
Pig iron.....	21,608,000	11,528,683	340,496	172,981
Iron ware.....	3,014,000	2,314,064	123,808	80,993
Domestic woollens.....	1,756,000	1,103,563	2,369,187	882,851
" cottons.....	2,396,090	2,493,561	740,901	632,652
Salt.....bush.	382,390	343,618	133,836	106,522

OTHER ARTICLES.				
Stone, lime, &c.....lbs.	59,094,000	65,246,669	63,129	92,379
Gypsum.....	8,518,000	3,715,980	17,584	8,336
Mineral coal.....	32,580,000	48,291,417	81,453	108,356
Sundries.....	147,988,000	97,796,493	2,944,914	2,001,252

STATEMENT SHOWING THE AGGREGATES IN TONS, AND THE ESTIMATED VALUE, UNDER THE DIVISIONS SPECIFIED IN THE ABOVE TABLE.

	1847.	1848.	1847.	1848.
The forest.....tons	666,113	615,325	$8,798,373	$6,994,469
Agriculture.....	897,717	685,996	54,624,849	37,336,390
Manufactures.....	51,532	37,330	6,024,518	3,834,360
Merchandise.....	4,831	6,343	517,594	593,619
Other articles.....	124,090	107,527	3,127,080	2,210,623
Total.....	1,744,283	1,452,521	$73,092,414	$50,969,461

STATEMENT OF THE TONNAGE AND VALUE OF ALL THE PROPERTY WHICH WENT FROM THE HUDSON RIVER ON ALL THE CANALS IN 1847 AND 1848.

	1847.	1848.
Tonnage.....	288,267	333,985
Value.....	$74,352,812	$76,760,766

AGGREGATE MOVEMENT FROM AND TO THE HUDSON RIVER DURING THE YEARS 1847 AND 1848, AND THE AGGREGATE VALUE OF THE PROPERTY TRANSPORTED.

	1847.	1848.
Tonnage.....	2,032,550	1,814,014
Value.....	$147,445,226	$127,983,961

VOYAGES OF THE BRITISH MAIL STEAMERS.

STATEMENT OF THE VOYAGES MADE BY THE BRITISH ROYAL MAIL STEAMERS DURING THE YEAR 1848, SHOWING THE DATE OF THE ARRIVAL, LENGTH OF PASSAGE, PASSENGERS BROUGHT, ETC.

Names.	Day of arrival.		Passage. Days.	Passengers from Liv'pool.	Halifax.	Left at Halifax.	Day of departure.		Passengers to Liv'pool.	Halifax.
Caledonia...	January	4	17	27	8	1	January	15	22	8
Acadia.....	February	1	16½	38	6	5	February	12	20	5
Britannia....	March	4	20½	36	13	2	March	11	19	2
Caledonia...	"	27	15	26	7	14	April	5	34	4
Acadia.....	April	23	15	40	14	11	May	3	60	6
Britannia....	May	7	14¾	16	5	8	"	17	35	8
Caledonia...	"	21	14¾	42	7	7	"	31	35	5
Niagara.....	June	2	12½	48	10	10	June	14	54	16
America....	"	13	18½	71	3	6	"	28	90	14
Cambria.....	"	30	12½	60	7	...	July	12	41	5
Niagara.....	July	12	10½	36	15	27	"	26	35	7
Europa.....	"	27	11½	60	20	...	August	9	33	19
Acadia.....	August	14	15	43	12	...	"	23	8	11
Britannia....	"	26	14	36	21	4	September	6	23	6
Hibernia....	September	8	12½	56	24	3	"	20	24	14
Acadia.....	"	24	14½	68	21	3	October	4	22	10
Cambria	October	6	12½	66	21	...	"	18	61	17
Niagara.....	"	19	12	86	17	11	November	1	49	6
Hibernia....	November	3	12½	51	5	7	"	15	12	7
Acadia.....	"	19	14	23	5	2	"	29	10	9
Britannia....	December	6	17¾	16	9	1	December	18	10	2
Niagara.....	"	16	13½	55	7	4	"	27	31	2
Total....				1,000	257	126			738	183

Average passages from Liverpool, 14 days 1 hour. The America made the shortest passage during the year, and the Britannia the longest.

SCHUYLKILL NAVIGATION COMPANY'S RATES OF TOLL ON COAL.

The following are the rates of toll charged on coal transported on the Canal and Works of the Schuylkill Navigation Company for the year 1849:—

To	From Mount Carbon. Cents.	From Schuylkill Haven. Cents.	From Port Clinton. Cents.
Orwigsburgh . p. ton	15	12	...
Hamburgh	25	22	13
Mohrsville	35	32	23
Alhouses'	40	37	28
Reading	45	42	33
Unionville	55	52	43
Laurel Hill	55	52	43
Pottstown Landing.	55	52	43
Rogers' Ford	55	52	43
Phœnixville...p. ton	60	57	48
Lumberville	60	57	48
Paulding's Dam....	50	57	48
Valley Forge	60	57	48
Port Kennedy	65	62	53
Norristown	65	62	53
Conshohocken	70	67	58
Spring Mill	70	67	58
Manayunk	75	72	63

The toll to Philadelphia will be as follows:—

	Mount Carbon.	Sch. Haven.	Port Clinton.
March, April, and May	65 cents.	62 cents.	53 cents.
June, July, and August	75 "	72 "	63 "
September, October, Novem., and Decem.	85 "	82 "	73 "

The coal shipped from Port Carbon to the above points will be charged one and a half cent per ton more than the said rates. The charge will be made per ton of 2,240 lbs., and an allowance of five per cent will be made on the weight shipped to cover wastage.

AUBURN AND ROCHESTER RAILROAD RECEIPTS.

The earnings of the Auburn and Rochester Railroad, during 1848 to December, show a large increase over the previous year, when the gross receipts were $395,767, and the nett receipts $241,153, or 12 per cent on the cost of the road. The comparative receipts of 1847 and 1848 have been as annexed:—

AUBURN AND ROCHESTER RAILROAD RECEIPTS.

	1847.	1848.		1847.	1848.
January	$17,770 67	$24,105 01	August	$48,392 74	$51,612 46
February	16,995 89	21,678 91	September	48,084 42	51,085 71
March	17,601 87	23,266 15	October	37,246 47	39,529 89
April	34,285 80	45,835 07	November	25,111 03	31,389 07
May	39,637 16	53,137 60			
June	36,832 38	39,262 28	Total	364,506 59	420,732 62
July	42,538 16	39,670 41			

Excess in eleven months of 1848, $56,226 03—equal to 15½ per cent. The nett earnings this year promise to be about $300,000—equal to 15 per cent on the cost of the road.

PROGRESS OF RAILROADS IN MASSACHUSETTS IN 1849.

The following railroads and sections of railroads leading towards Boston, or connecting with Boston lines, will have been opened during the year ending January 31, 1849:—

Cape Cod Railroad	miles 27½	Boston, Concord, and Montreal Rail'd	36
South Shore Railroad	11½	Passumpsic Railroad	40
Norfolk County Railroad	26	Worcester and Nashua Railroad	45
Milford Branch Railroad	12	Portland to Lewiston	27
Vermont and Massachusetts Railroad	35	New York and New Haven Railroad to Harlem Railroad	60
Connecticut River Railroad	11	Section of Ogdensburgh Railroad	12
Cheshire Railroad	37	Stony Branch Railroad	14
Sullivan Railroad	28	Lowell and Lawrence Railroad	12
Vermont Central Railroad	65		
Bristol Railroad	12		
Northern Railroad	4	Total miles	515

COMMERCIAL REGULATIONS.

APPRAISAL OF MERCHANDISE.

THE Secretary of the Treasury has issued the following circular, touching the Appraisal of Merchandise, under date of the Treasury Department, December 26th, 1848:—

Differences of practice existing in the several ports relative to the appraisement of merchandise, the following additional instructions are issued for the government of collectors, appraisers, and other officers of the customs, under the 25th section, Act 30th of August, 1841, which is in these words:—"That it shall be the duty of all collectors and other officers of the customs, to execute and carry into effect all instructions of the Secretary of the Treasury, relative to the execution of the revenue laws; and in case any difficulty shall arise as to the true construction or meaning of any part of such revenue laws, the decision of the Secretary of the Treasury shall be conclusive and binding upon all such collectors and other officers of the customs."

The interests of the country and of fair and honorable merchants, require that this Department should, by every means in its power, secure not only the revenue against loss, but should maintain such merchants in their business against sales of imported articles at diminished rates, arising from fraud or under-valuation.

To appraisers the government looks for correct valuations of foreign imports. On these officers, more than any other, does the success of the ad valorem depend. Their responsibilities are great, and it is expected that their efforts will not be relaxed to check every under-valuation or fraud upon the revenue by whomsoever attempted. In the strict and faithful performance of their duty, at times necessarily disagreeable, their judgment should have great weight with other officers of the revenue service, and especially with the collectors of ports, who should, in all cases, render them every aid and co-operation in their power.

The intent of the 17th section of the act of 30th of August, 1842, in the appointment of merchant appraisers, is evidently to give the merchants an opportunity to appeal from one class of appraisers to another. But it is clear that Congress did not design to relinquish the power in the government to select the merchant appraisers, to whom the case might be referred, nor to give the parties appealing any more voice in the selection of such appraisers than of any other government officers. To consult the parties concerned, or allow them a voice in the selection of merchant appraisers, would soon result in permitting the importers to control the appraisement of their own goods, and it is presumed is not permitted at any port.

Merchant appraisers should be particularly instructed, that when acting in that capacity, they are to be governed by the same rules and regulations as provided by law for the direction of regular appraisers, and are to act upon the principle that the invoice price, or even the price actually paid for an article of merchandise, is by no means a true criterion of the fair market value as prescribed by law. Adopt a contrary principle, and one who is so fortunate as to have a quantity of merchandise given him, would be entitled to receive it free of duty, or at a nominal duty, if purchased at nominal prices; and different rates would often be assessed by appraisers by articles of the same value. The fair market value intended by law, is the general or ruling price of the article "in the principal markets of the country from which the same shall have been imported." The Treasury circular of August the 7th, 1848, declares that "forced sales in foreign markets at reduced prices under extraordinary or peculiar circumstances, cannot be taken as the true market value of such goods."

To secure uniformity of action at the different ports, the merchant appraisers are to be selected, and their appraisements made in the following manner:—When the appraisers all concur, they may designate five names, or when such concurrence does not exist, the appraiser making the advance, may designate five names of impartial merchants, citizens of the United States, familiar with the value of merchandise, and of the highest credit for integrity and fair dealing, from whom it is recommended that the collector select two as the merchant appraisers, to act under the law, who shall be duly sworn as provided for in the Treasury Instructions of July 6th, 1837, omitting in the oath the name of the importer. In the notice to be sent to the appraisers selected as provided in the same instructions, the name of the importer is also to be omitted. The names of the merchant appraisers selected shall also be withheld from the importers, until such appraisers assemble for the performance of their duty, as it is important that no ex parte statements be per-

mitted, the sole object being to obtain a fair and disinterested examination and valuation of the merchandise. When the collector has fixed the time and place for the merchant appraisers to assemble, he will notify the importer of such time and place, but not the names of the merchant appraisers. Such importer may be present if he desires, and every proper facility should be given him for a thorough examination and ascertainment of value.

To facilitate collectors in settling their accounts, this re-appraisement should take place immediately, or at all events, not be delayed beyond six days from the time the re-appraisement is demanded, unless, in the opinion of the merchant appraisers, there are extraordinary circumstances requiring an analysis, or proof not to be procured within that period. Should such delay extend beyond ten days, a statement of the case by the collector must be forwarded to this department for its examination. The collector, in such cases, shall also call on the regular appraisers for a statement, and transmit it to the department. In all cases where the merchant appraisers assess a lower value than the regular appraisers, the collector will report to the department a full statement of the case, to be recorded here, together with the names of the merchant appraisers. He will also transmit at the same time to this department for record here, a statement, which he will obtain of the case, from the regular appraisers.

In case the merchant appraisers are at variance with each other in their appraisements, and the collector compelled according to law to decide between them, it is expected that he will, without delay, or within five days from the time the re-appraisement is made, decide the question of value; and if he adopts the lowest appraisement made, he will give the reasons for the same in his statement, to be forwarded to this department for record as directed above.

This department earnestly invites the co-operation of collectors, appraisers, and other officers of the customs, in enforcing correct valuations, and will also be glad to receive information and assistance from all honorable merchants and citizens who desire to protect the revenue, to guard the rights of the honest trader, and to insure the faithful execution of the laws. The selection of "merchant appraisers" should not be confined exclusively to those connected with foreign imports, but, when the requisite knowledge exists, should be extended so as to embrace domestic manufactures, and producers and other citizens acting as merchants, although not dealing in foreign merchandise.

In all cases where the advance by the regular appraisers is short of the penalty, they shall report to this department the names of the importer, consignee, and consignor, together with the invoice value and rate advanced.

The law requiring importers to give notice "forthwith" to the collector of a demand for re-appraisement, no such re-appraisement shall take place unless notice is given to the collector, in writing, of such demand within a period not longer than the day succeeding the notice of such appraisement, which the regular appraisers shall give in all cases as soon as the appraisement is made.

In all cases where the goods are advanced by the regular appraisers twenty per cent more than the invoice, and no re-appraisement is called for, the said appraisers, on ascertaining that fact, shall report to the collector in writing whether the interests of the government will best be promoted by taking the duty with the penalty, as prescribed by the law, or by taking the duty in kind, as authorized by the 18th section of the Act of 30th August, 1842, as enforced by the circular of this department of the 28th of November, 1846; and if the appraisers advise the duty to be required in kind, it shall so be taken by the collector. In all such cases also, when the goods are advanced by the regular appraisers twenty per cent above the invoice value, and a re-appraisement is made by the merchant appraisers, the collector shall make a statement of the duty thus ascertained and fixed by him, including the penalty, if any, to the regular appraisers, who shall thereupon report in writing to the collector whether it is the interest of the government to take the duty thus ascertained, or require the duty in kind; and if the regular appraisers advise the duty to be required in kind, it shall so be taken by the collector.

In all cases where the duty is taken in kind, it is to be thus assessed under the law according to the several schedules, viz:—If the duty be 100 per cent, the whole of the goods shall be taken; if 40 per cent, two-fifths; if 30 per cent, three-tenths; if 25 per cent, one-quarter; if 20 per cent, one-fifth; if 15 per cent, three-twentieths; if 10 per cent, one-tenth; if 5 per cent, one-twentieth; and the goods so taken in kind, are to be sold as provided in the Treasury circular of 28th of November, 1846.

These regulations, whilst protecting the revenue against fraud, or under valuations, will insure correct invoices, inducing a compliance, where necessary, with the 8th section of the Act of 30th July, 1846, and guard the interests of the fair and honorable merchant.

Whenever it is found necessary by the regular appraisers or merchant appraisers to guard against fraud or under-valuation, they will carry into effect the following provisions of the 2d section of the Act of the 10th August, 1846, declaring that "in appraising all goods at any port of the United States heretofore subjected to specific duties, but upon which ad valorem duties are imposed by the Act of the 30th July last, entitled 'An Act reducing the duty on imports and for other purposes,' reference shall be had to values and invoices of similar goods imported during the last fiscal year, under such general and uniform regulations for the prevention of fraud or under-valuation, as shall be prescribed by the Secretary of the Treasury," as enforced by the circular instructions of the 11th of November, 1846, and 26th of November, 1846. "The last fiscal year" designated in this section intended by Congress, was "the last fiscal year" preceding the enactment of that law, which was the fiscal year ending the 30th of June, 1846, to which reference is required by the law to values and invoices of similar goods, when necessary to prevent fraud or under-valuation.

Where goods are advanced in price by appraisement, the estimates of the per centage advance, to ascertain whether the same are liable to the penalty as provided for in the 8th section of the Act of the 30th of July, 1846, must be made only on the article so raised in price, and such additional duty and penalty must be so levied and collected. In no case will the advance be estimated on the entire invoice, except where the goods are the same in quality, description, and value, and the same advance of price is made on the whole. R. J. WALKER, *Secretary of the Treasury.*

THE POSTAL TREATY BETWEEN THE UNITED STATES AND GREAT BRITAIN.

We publish below the official notice of the Postmaster General, to the public, with instructions to Postmasters. It embraces the rates of postage established on foreign letters by the two governments, and all the regulations necessary for postmasters and the public.

NOTICE TO THE PUBLIC, AND INSTRUCTIONS TO POSTMASTERS.

I. A Postal Treaty has been entered into between Great Britain and the United States, placing the correspondence between the two countries, the mail packets of each Government, and the postage charges upon an equal and reciprocal footing.

II. Letters posted or charged in the United States will be rated at half an ounce to the single letter, over a half and not exceeding an ounce as a double letter, over an ounce and not exceeding an ounce and a half as a treble letter, and so on, each half ounce or fractional excess constituting a rate. In England the half ounce limits the single letter, the full ounce the double letter, but on letters exceeding the ounce and not exceeding two ounces four rates are charged; also, on letters exceeding two ounces and not exceeding three ounces, six rates are charged; that is, two rates are imposed for each excess over an ounce.

III. The single rate to be charged on each letter posted in the United States addressed to any place in Great Britain or Ireland is 24 cents, the double rate 48 cents, the triple rate 72 cents, and so on according to the United States scale of progression in weight.—See No. 2.

IV. Like single, double, triple, &c., rates will be collected on each letter according to its weight, which is posted in Great Britain or Ireland without being prepaid, and is received at any office in the United States for delivery.

V. Said postage on letters going to any place in Great Britain or Ireland may be prepaid, if the whole amount is tendered at the office in the United States, when mailed, at the option of the sender.

VI. Newspapers may be mailed at any office in the United States to any place in the United Kingdom on the payment of 2 cents, and may, on receipt from any place in Great Britain or Ireland, be delivered at any office in the United States on payment of 2 cents. *Note.*—Each Government is to charge 2 cents on each newspaper. These are to be sent in bands or covers, open at the sides and ends, or to contain no manuscript whatever.

VII. On each pamphlet to be sent to any place in the United Kingdom, and on each pamphlet received therefrom, there is to be prepaid in the first place, and charged and collected in the second, one cent for each ounce in weight, or a fractional excess of an ounce. These are to be sent in bands or covers, open at the ends or sides, so as readily to be examined, and to contain no manuscript whatever.

VIII. On letters addressed to any place in British North America, not to be conveyed by sea, there shall be charged a postage equal to the United States postage and the Province postage combined; but, as this Department is yet uninformed of the British Province rates, the United States postage to the lines will be charged, and prepayment thereof re-

quired, until the details are ascertained and settled, as required by the 21st article of the Treaty. United States postage on newspapers to Canada and other British Provinces is to be prepaid.

IX. On letters to be sent to any foreign country or British possession, and mailed for that purpose to any Post Office in the Island of Great Britain, there must be prepaid, if sent by a British packet, 5 cents the single rate, and if by an American packet, 21 cents —to be doubled, tripled, &c., according to weight.

X. On letters received from foreign countries or English possessions, through the London or any other Post Office in Great Britain, to be delivered in the United States, the foreign and British postage is to be prepaid, and what remains to be collected on delivery here in such cases as simply the United States postage—5 cents, single, if brought by a British packet; 21 cents if brought by an American packet; 40 cents if such letters are delivered at San Francisco, Astoria, or any other place in the territory of the United States on the Pacific, when brought to an Atlantic port by a British steamship, and 56 cents if brought by an American steamship.

XI. On British or foreign letters received in the United States to be forwarded to the West Indies by American packets, or any place on the Gulf of Mexico, to Chagres or Panama, in the United States mails, the single postage charged will be (as the British postage and the postage arising in its transit to Great Britain must be prepaid) 12½ cents if to Havana, 20 cents if to any other place in the West Indies or on the Gulf of Mexico, or to Chagres; 30 cents if to Panama, with 16 cents added if brought to the United States from Great Britain in an American packet.

XII. Care is to be taken to see that all American postage on letters from Havana, from other places in the Gulf of Mexico, from our Pacific possessions, and from the British North American provinces, is paid in the United States before the same is dispatched by mail to Great Britain.

XIII. Newspapers for countries beyond Great Britain may be sent on the prepayment of two cents each—also pamphlets as stipulated under No. 7—and newspapers and pamphlets received from countries beyond Great Britain are to be delivered on payment of the two cents for each newspaper, and one cent per ounce in weight of each pamphlet.

XIV. Postmasters are cautioned to write on their post-bills, opposite each entry of a foreign letter, newspaper or pamphlet posted by them respectively, the word "foreign," the better to enable the Postmasters of New York and Boston, and any others that may be designated, to make a separate quarterly report of the amount of foreign postage.

XV. The Postmasters of Boston and New York will be specially instructed as to the closed mails contemplated by the treaty, the mode of keeping their accounts of foreign postage, and of mailing and acknowledging receipt of foreign matter.

C. Johnson, Postmaster General.

Post Office Department, January 8, 1849.

RIO JANEIRO REGULATIONS ENFORCED.

Rio Janeiro, *November* 1, 1848.

A new inspector has taken charge of the custom-house, and being determined to carry out all the laws to the strict letter, has given great trouble, annoyance, and detention. Almost every vessel has been fined more or less for errors in their manifests, which are oftentimes very incorrectly made out in the United States. We would, therefore, remind our friends that two manifests are required, containing all the marks and particulars in conformity with the bills of lading; and should there be a shipping mark in addition to the manufacturer's, it would be well to obliterate the latter. The manifests should be certified by a Brazilian consul, and filled for Rio and a Market, as, without the latter clause, a vessel cannot proceed to a foreign port without paying an extra duty, or to a Brazilian port except in ballast.

The captain should carefully compare the manifest with the bills of lading on the passage, and should he discover any errors, either in quantity or marks, &c., endorse them on the manifest before delivering it to the boarding officer, acquainting him with the same. This will prevent all fines. Also endorsing a certain number of packages in dispute when there is a doubt of the quantity, is always advisable.

SEIZURE OF VESSELS AT BRITISH PORTS FOR SMUGGLING.

In answer to numerous remonstrances from merchants and ship-owners against the hardship and injustice of placing large vessels under seizure, on account of individual instances of smuggling small quantities of tobacco by sailors, and this, too, when the real culprits

were seized and made amenable to the law, the Commissioners of Customs have issued an order authorizing the principal officers of the customs at Liverpool to release any ship now legally seized—1st, whenever the contraband tobacco or liquor is found on the person of the offender; 2dly, whenever in a ship of 500 tons, or under, the quantity concealed does not exceed 20 lbs. tobacco, or five gallons of spirits; and, 3dly, when in a ship upward of 500 tons, it does not exceed 30 lbs. of tobacco, or 10 gallons of spirits. By another order, vessels from foreign ports, on arrival, and subsequently, are to be allowed from surplus stores, placed under the custom-house seal, reasonable quantities of tobacco, wines, spirits, and other stores, with the exception of segars and raw coffee; while to ships in the river, the privilege is to extend to segars.

NAUTICAL INTELLIGENCE.

GREAT CIRCLE SAILING.*

The rules of Middle Latitude and Mercator's Sailing have been so universally followed by navigators, that until lately they have been taken as undisputed, and scarcely any one would be listened to who presumed to call their truth in question. But they are very far from being correct, and especially in long distances give erroneous results. Bowditch says (p. 66, note) that in Plane Sailing the error may be made less than any assignable quantity, and (p. 67) Mercator's Sailing is perfectly accurate; yet he gives in appendix, Prob. XVIII., a case in spherics exactly in point, which disproves these rules.

The shortest line between any two points on the earth's surface is an arc of a great circle; a north and south line everywhere, and an east and west line only on the Equator, are such arcs; an east and west line of latitude is an arc of a small circle, consequently is not the shortest line, and every other course, by compass, forms a compound spiral curve, constantly approaching the pole but never reaching it. Every case of course and distance, with the two former exceptions, is a problem in spheric trigonometry, having the same elements which astronomical calculations have, and is solved in the same manner. And *all the cases* of Plane, Parallel, Middle Latitude, and Mercator's Sailing, where courses or distances are in question, *are erroneous.*

The principle may be illustrated by stretching a thread upon a globe between any two places which will evidently lie upon the shortest line. If this line is transferred from the points of latitude and longitude which it cuts upon the globe to the corresponding points on Mercator's chart, it will form a curve, of which the straight course by chart will be the cord; yet the apparent curve is the true course and distance, and *vice versa.*

For further illustration, divide the curve into several parts, and having the latitude and longitude of each, find the distances by Mercator's or Middle Latitude rules; the sum will be much less than a single distance found by the same rules, and will be little more than that found by a spheric calculation.

The difference which may be saved in sea room between New York and Liverpool is nearly one hundred miles; between Matanilla Reef and Cape Clear about one hundred and forty; and in these instances the error in first shaping a course is over two points.

The reason why this principle has not been more generally understood and acted upon by navigators is, that it is not taught in the common books, nor has it ever been presented in such a simple manner that practical men can work it out with a common day's reckoning. A problem in spherics is to most a difficult and far off thing, only to be touched by learned professors at observatories, who construct tables and get up the Nautical Alma-

* Chart of the North Atlantic Ocean, with the Great Circle lines between the usual points of departure and arrival, intended practically to assist the navigator in shaping his shortest course. By Andrew Scott. Published by D. Eggert & Sons, New York.

nac. It is for practical men that this chart is especially intended. Of convenient size, and answering all the purposes of a general chart, the Great Circle lines are drawn in such approximation that whatever the navigator's position may be upon the ocean, he will find himself near some one leading towards his destination, and he can shape his course at a glance, without going into any calculation.

PROTECTION OF SHIPS FROM DAMAGE BY LIGHTNING.

To Freeman Hunt, Esq., *Editor of the Merchants' Magazine.*

Since I wrote a communication under this head, published in the Merchants' Magazine for January, 1849, I have received a model of a mast, with a lightning plate attached, from Dr. Johnson, of Charleston, S. C., referred to by him in his communication in the December number of the Merchants' Magazine for 1848, and subsequently I have received from R. B. Forbes, Esq., of Boston, a small volume entitled "Harris on Thunder Storms," published in London in 1843, together with a pamphlet of 64 pages, from the same author, published in London in 1847, entitled "Remarkable instances of the protection of certain ships of Her Majesty's Navy from the destructive effects of Lightning," &c., &c.

It is due to Dr. Johnson and to Mr. Forbes, that I should examine the matters they have placed in my hands, before I send a communication to the Merchants' Magazine for the February number, and as the time necessary is not at my command, I am, therefore, under the necessity of delaying the "further remarks on this subject," mentioned in the last paragraph of my January communication. Yours, &c.

E. Meriam.

LIGHT-HOUSE AT UNDERSTEN, IN THE BAY OF ALORNEL.

Stockholm, November 17, 1848.

The Royal Marine Board hereby announce the erection, during the past summer, of a new light-house—which was lighted for the first time on the 11th of the present month—on the rock Understen, in the Bay of Alornel, in north latitude 60° 46′, and longitude 37° 4′ 30″ east of Ferroe, or 18° 54′ 45″ east of Greenwich. In the tower, which is white, and rises (eighty feet) above the water, is placed a revolving light, which illuminates the whole horizon from N. N. W. ½ W., East and South, to W. S. W. by the compass, and can be discerned, in clear weather, from an ordinary ship's deck, at the distance of 3½ German (14 English) miles.

The "Beacon" heretofore standing on Understen has been removed, leaving nothing on the summit of the rock but the White Tower mentioned, and two houses, both of which latter are painted red.

LIGHT ON THE NORSKAREN, GULF OF BOTHNIA.

Hydrographic Office, November 28, 1848.

Information has been received by her Majesty's Government, that on the 13th of July, 1848, a Revolving Light was established on the largest and Southernmost Islet of the Norskaren Group, in the Gulf of Bothnia.

This Light revolves in one minute, and at each revolution shows a flash which lasts from five to ten seconds. These flashes are preceded and followed by short intervals of darkness, which, however, will not appear to be total at the distance of a few miles.

The Light-house stands in latitude of 63° 13′ 45″ N., and longitude 19° 37′ 39″ E. of Greenwich; the height of the Tower is 62 feet, but the Light stands 104 feet above the level of the sea, and may be seen at the distance of about 16 miles from all points of the compass, in clear weather.

SHIVERING SAND BUOY.

The Shivering Sand Buoy, which was moved about two cables' lengths to the W. ½ N., lies in 3¼ fathoms at low water spring tides, with the following marks and compass bearings:—

West end of Cleve Wood, in line with St. Nicholas' Eastern Preventive Station-house, S. by E. ¾ E.; Whitstable White Mill, in line with the Western Coke Chimney, at the same place, S. W. ¾ S.; East Oaze Buoy, N. W.; Mouse Light Vessel, N. W. ¾ N.; Nob Buoy, N. E. by E. ¾ E.; Girdler Light Vessel, S. S. E.; East Gilman Buoy, S. W. ¼ S.; Red Sand Buoy, West Northerly.

NEW LIGHT-HOUSE AT DARSZER ORT.

At Darszer Ort, in the peninsula of Darsz, a Light-house with two Lights has been erected, which will burn throughout the whole year, to begin from 1st January, 1849. Both Lights will be lighted every day at sunset and extinguished at sunrise.

The first Light is one hundred and five Prussian feet above the level of the sea, and consists in Fresnel's apparatus of lenses of the second order of rotatory light with darkness per minute. The upper and lower part of the star remain in sight during the darkness, in order that navigators may not lose their direction while it prevails. It is, therefore, only the centre of the star which is subjected to the darkness. The Light illuminates the entire horizon, and serves the navigators, who lose sight of the Light of Arcona in the East, on approaching the shore, clearly to mark the promontory point of Darszer Ort.

The second is a fixed Light, forty Prussian feet above the level of the sea, and is formed by three Argand Lamps, with reverberatory reflectors. This Light, in connection with the Gyedser Light on the Danish Coast of Falster, marks the passage between the sand banks near Darszer Ort and the rocky reef Trendelen, and lightens an angle of forty degrees from West ¼ North to North-west by compass.

Darszer Ort, where the Light-house is erected, is situated 54° 29′ Northern latitude, and 12° 31′ Eastern longitude from Greenwich.

This Light-house is situated at a distance of 57 rods, or 114 fathoms, from the sea, the Tower being 100 feet high, built of red brick and not plastered, on which the Lantern is placed, and serves also for a landmark.

HETTY POINT, OR CAPE CAPSTAN LIGHT.

The new Light-house on Hetty Point, or Cape Capstan, in lat. 45° 35′ N., lon. 64° 42′ W., being the north side of the entrance of Apple River, on the south shore of Cumberland Bay, about six leagues above Cape Chignecto, is also in operation, and shows two lights horizontally, when approaching it from the westward or seaward side. The lights are about forty feet above high water, (rise and fall about 55 feet.) The building is square and painted white, and is a conspicuous beacon in day time to mark the entrance of Apple River, a place of resort for vessels of 100 tons and under. The following bearings are given from the light:—

To the Sisters' outermost head	S. 61° W.
Salmon River	N. 9° W.
Cape Enrage Light	N. 41° E.
Grindstone Island	N. 51° E.
Along shore, easterly	N. 62 E.

LIGHT-BOAT IN THE PASS OF WIELINGEN.

Information has been received through the Belgian Consul General at New York, that a light-boat will hereafter be moored in the Pass of Wielingen, near the shoal known as the Paarde-market, in the river Scheldt, from which the following are the bearings:—The Tower of Flushing E. 8° 26′ S.; the Tower of Ecluse, S.; the Light-house of West Capelle, N. E. 5° 37′ E.; and the Tower of Lisseweghe, S. W. ¼ W. The light will be placed thirty-four feet above the water, and will contain eight argand lamps, showing a constant red light, which will appear every night from sunset to sunrise. At the same time, the light-house of Heyst, in latitude 51° 20′ 22″, and longitude 3° 14′ 13″ E. of Greenwich, will show a white light.

LIGHT ON HEATH POINT.

Hydrographic Office, November 22, 1848.

Information has been received at the British Admiralty, that on the 14th of October, 1848, a Fixed Light was established on the eastern end of the Island of Anticosti, in the River St. Lawrence.

The Light stands 100 feet above the level of the sea, and may, therefore, be seen at the distance of about 16 miles, in fine weather. It was extinguished on the 15th December, 1848, and will be again lighted on the 1st of April, 1849.

When standing in towards South Point, the Light-house should not be shut in behind Cormorant Point, as some dangerous reefs project from the former.

JOURNAL OF MINING AND MANUFACTURES.

GOLD AND OTHER PRECIOUS METALS.

THE Boston "*Bank Note List*" of Willis & Co. furnishes, in a late number, some speculations and statements touching the value of the precious metals, which will doubtless be read with interest, when, as at the present time, the gold mania seems to have, in a greater or lesser degree, taken possession of most of our countrymen. The statements are undoubtedly derived from the most authentic data; the speculations we quote as the views of the editor of the Bank Note List, without, however, endorsing his opinions:—

PRECIOUS METALS. The amount of gold and silver in the world is generally estimated at ten thousand million of dollars, whilst the annual consumption, or rather demand, is supposed to be one-half of one per cent of this sum—that is, fifty millions of dollars. There appears to be no accurate data as to the annual production of these metals; the whole is a subject of speculation. From the best sources of information that are open to us, the yearly production of silver may be set down at twenty-five millions, and of gold from fifteen to twenty millions. Starting from this point, which may be considered as approaching accuracy, the expected yield of the California mines will only about keep the stock in the world going. No perceptible change in the value of gold has ever been produced by the large quantities which have been hitherto acquired, amounting to one hundred and twenty-five millions from Russia alone, within a quarter of a century. Whatever may be the amount raised from California, the result will be to enlarge the consumption for purposes of art and luxury, whilst its value for commercial uses will remain unchanged.

There is unquestionably a scarcity of gold among the nations of the world for currency. The coins of one government are constantly being recoined at the mints of another. A large amount in new sovereigns, which came out to this country a few years since to adjust the balance in our favor, were recoined at Philadelphia, so that soon after, when the state of trade changed the account in favor of England, and it became necessary to export specie, sovereigns commanded a premium of nearly one per cent, although the number so recently imported greatly exceeded that required for the export, to say nothing of those on hand formerly. United States, as well as foreign coins, are being constantly melted down by our manufacturers, for the want of bullion. The following article we have prepared with considerable care; the statements may be strictly relied on, and we trust it may be found both useful and entertaining in the present absorption of the public attention in regard to the subject of which it treats.

GOLD. Gold is the only metal of a yellow color, and affords a resplendent polish; it is the most malleable of metals, but of great tenacity; its hardness is almost equal to lead and tin, but inferior to iron, copper, platinum and silver. It may be exposed to the atmosphere for any length of time, without suffering change; it is remarkable for its beauty; it is nearly twenty times heavier than water, and next to platinum the heaviest known substance; gold is worth sixteen times as much as silver, and nearly three times as much as platinum. It is easily wrought and stamped, or melted, and does not waste by the operation; and when alloyed, its proportions can readily be ascertained.

The degree of alloy in gold and silver, in currency, is various. A prevalent proportion is one-twelfth; but the decimal proportion of one part alloy in ten, is gaining favor, and is the present standard of all Spanish coins, and coins of various parts of Germany, of France, Belgium, Rome, and the United States. Copper and silver are the alloys of gold in the United States—the proportion is 900 parts gold, 25 silver, 75 copper, a fraction over 21 carats fine. The weight of an eagle is 258 grains, (parts in proportion,) of which 232 grains must be fine gold.

The heaviest coin of modern times is the golden five moidore piece of Portugal, which weighs 828 grains, and is worth $32 70; the smallest is the Turkish para, weighing 1½ grains, partly silver, and worth one-third of one cent. Russia is the only nation where platinum is used in currency. They use three denominations, 12, 6, and 3 roubles. The objection to platinum for coin, is its scarcity, unsteady price, and the inability to melt it by furnace heat; it can only be wrought by welding. Its value is rated at $6 70 the troy ounce; the annual product, $400,000.

Bullion, in commerce, is applied to gold or silver reduced from the ore, but not manufactured. Gold bullion, at the mint of the United States, is considered as of two kinds—

UNWROUGHT AND MANUFACTURED. Of the first kind there are four descriptions. 1. Washed grains, or gold dust. 2. Amalgamated cakes and balls. 3. Laminations. 4. Melted bars and cakes.

FIRST. *The washed grains* are the shapeless particles, or masses, which are collected from the washings of rich alluvial sands. They are of all sizes, from the massive lump to the minutest spangle. In North Carolina a lump was found which weighed, in the crude state, 28 pounds. It was found near the surface; its value was $4,850. In Peru, the largest lump found weighed 26½ pounds; and a lump found in New Granada, 27½ pounds; a lump in the possession of the French Academy weighs 37½ pounds troy, and is 992 thousandths fine, worth $9,200. This is the description of gold found in North and South Carolina, and Georgia. The latter is the best gold; the average fineness is 950 thousandths; it occasionally reaches 995 thousandths, which is the nearest approach to absolute purity ever discovered. Mexican and African gold comes in this shape, and averages from 900 to 950 thousandths fine.

SECOND. *Amalgamated gold* is found with quicksilver. Gold in this form is very variable, and suffers a loss of nearly 5 per cent in melting. This description is brought from Virginia, Western Mexico, and New Granada.

THIRD. *Laminated gold* is largely alloyed with silver, apparently in layers, plated together. It is found in Central America. The metals are sometimes separated before they are sent to the market, by adding silver till the gold forms about one-fourth of the mass, when the whole is rolled or beaten into thin sheets, and exposed to the action of nitric or sulphuric acid, which removes the silver without destroying the cohesion of the gold.

FOURTH. *Bars and Cakes.*—In our mining regions the usual form is a neat ingot, six inches long, by one-half to one inch in breadth and thickness. From Western Mexico, Peru and Chili, gold comes in cakes, called tiges, frequently bearing an assayer's stamp, varying from 25 to 50 per cent in fineness. A fraud is practised in this kind of gold, by a process called PICKLING, which consists in plunging a bar into an acid, which dissolves other metals, and removes them from the surface, leaving the gold alone visible.

The most important class of gold bars from London and Paris, (chiefly the latter,) bear the mark of the government or private assayer. They are styled pure gold. The French indemnity, in 1835, was paid to this country in upwards of 600 bars, the aggregate value of which was $3,500,000. A bar of fine gold, six inches long, three inches wide, and one and a half thick, which is the medium size, would weigh 275 ounces. Its value would be about $5,900.

SUCCESS OF AMERICAN MANUFACTURES IN INDIA.

A late Liverpool paper, says the *Washington Union*, in an article upon British and American commerce, has the following remarks. The writer attempts to show that the recent change in the English navigation laws has been detrimental to the British interests in that quarter, but that it has been highly favorable to American shipping and American manufactures. We copy his statement to show the course of business in relation to American and British manufactures in India, where it would seem, from this authority, that our fabrics have nearly a fair chance as compared with their British rivals, and thus supersede them in the market.

"One of the earliest measures of Lord Dalhousie, the present Governor General of India, was, in wild anticipation of the repeal of the navigation laws *here*, to sweep away all the counterparts of those laws *there*. This has, of course, conduced to the benefit of American shipping. It seemed to 'the powers that be,' not enough that a special act of Parliament, for reasons *we* could never discover, empowered the shipping of the United States to supersede our own shipping in our own English ports, and to carry cargoes of British manufactures to British India on the self-same terms as British shipping.

"The authorities in India have hastened the adoption of a navigation policy which peculiarly plays the game of the American shipping. English vessels cannot carry one sixpence worth of freight coastwise from port to port in America; yet American vessels can now carry freight *coastwise* from port to port in an Indian empire! This, with facilities for carrying cotton to China, and the favorable terms on which they can import American manufactured cottons in India, are already yielding their natural and bitter fruits.

"In unfortunate conjunction with this relaxation of the navigation laws—a relaxation which already crowds our India ports with a remarkable increase of American vessels—there was the ill-considered assimilation, as nearly as possible, between British and American cotton goods. The import duty into India, on British, was raised from 3 to 5 per cent, and was simultaneously lowered on American fabrics from 20 to 10 per cent.

"It needs no seer to predict the fatal consequences. Only the other day, the Peel organ talks glibly of American manufacturers girding up their strength to enter on the race of competition with our own manufacturers, in *our own* markets of the East. With all deference, we assert that the political prophet is 'too late' in the field. His predictions had previously become history. On high mercantile authority, intimately connected with the East, we learn that in certain descriptions of cotton goods the Americans have already beaten our manufacturers hollow. We allude especially to the heavier kind, called 'domestics' and 'drills.' It is well known that in tropical climates, cottons are the chief clothing. We hasten to inform the free-trading cotton spinners of this country, that they are *superseded* in these staple articles, and that it is 'a great fact that American cotton manufacturers are already clothing our own Indian army.'"

METHOD OF WASHING GOLD DUST IN CALIFORNIA.

Richard M. Sherman, a member of the Society of Friends, formerly a resident of Fall River, but now in the gold region of California, under date, San Francisco, 10th month, (8th October,) gives the following account of the method of washing the gold from the dust and dirt:—

There have been many machines invented for the purpose of washing the gold dust from the dirt and sand; but the most general, and they say the best way is, to wash it out with a common tin pan. The mode of washing it out is this: take a quantity of the soil selected from spots appearing to contain much of the "dust," and put it into the pan; the pan is then filled (or nearly so) with water, when by the motion of the pan, or action of the hand in the water, the dirt becomes saturated; the gold dust then, being so very heavy, settles to the bottom, and the water with the dirt is poured off, leaving the dust with a little sand at the bottom. The gold dust is washed with so much facility, that, as yet, very little quicksilver has been used, though several quicksilver mines have been discovered within sixty miles of this place, one of which has been worked, yielding 80 to 90 pounds per day. To give you some idea of the quantity of "dust" produced, people are daily arriving from the gold region with from 10 to 100 pounds of the gold dust, worth here $192 per pound, or say from $1,920 to $19,200; and some trading concerns have brought down $25,000 worth at once. I yesterday weighed out and paid away $18,000 worth in transacting the business of myself and partner.

MERCANTILE MISCELLANIES.

A MODEL WAREHOUSE FOR FANCY GOODS.

We have been struck with the beautiful architecture of the Fancy Goods and Comb Warehouse lately erected by Messrs. William H. Cary & Co., at number 243 and 245 Pearl-street, and 18 and 20 Cliff-street, in New York. For elegance and fine effect, this edifice presents one of the most striking store fronts in the city. Edifice, we say, for certainly its dimensions, and the style and scale of all its arrangements entitle the building to no less dignified a name. Running through from Pearl to Cliff-street, with a depth of two hundred feet, being the entire depth of the block, it has a front of fifty feet on each street, and covers more than four full lots of ground, having good right, therefore, to its four street numbers. The merchandise sales-room embraces an area of over ten thousand square feet, and the effect upon the visitor on entering, of the long vista of iron columns, and of shelves loaded and crowded with valuable goods, is really imposing. The first story, on both Pearl and Cliff-streets, is adorned with cluster columns of the brown Portland stone. These columns support a structure five stories high, carefully built of the same beautiful stone, and terminating in a heavy worked stone cornice, which gives a fine effect to the whole.

In short, the new warehouse of Messrs. Cary & Co. adds another proof to the many which the streets of Boston, New York, and our other large cities afford that an improved taste in building is not confined to church architecture. An increased attention to what is called ecclesiology has often been remarked of late; no proof, perhaps, of increased piety. But whether the increased beauty of our churches indicates increased piety in church-goers or not, there cannot, certainly, be better evidence of ample means united

to good taste, a better indication of a well established business, than a warehouse like that of Messrs. Cary & Co., in which, while every convenience in the business arrangements is provided, beauty of appearance is not neglected.

These arrangements are very complete. Connected with the salesroom is a well lighted basement, of the same ample dimensions. Here may be found the modern conveniences (which become rather indispensable in such a building) of gas and Croton fixtures, and hot air furnaces of the most approved style. Under the street in Cliff-street is a vault detached from the building, affording the amplest security against fire.

One would think that a warehouse so large would afford "ample room and verge enough" for a business of any extent in articles of no greater bulk than combs, brushes, buttons, thread, needles, beads, pins, pens and perfumery. But did the reader ever consider how many varieties there are of the single article, a brush, varieties not merely useful but necessary? In the catalogue of Messrs. W. H. Cary & Co., we find fifteen or sixteen different kinds, without reference to the different materials of brushes of the same kind. Of what a vast variety of materials are combs manufactured! In the catalogue are mentioned tortoise shell, ivory, horn, German silver, brass, iron and wood, and styles varying from the plainest to the most exquisitely finished. There are beads of every style and material, of coral and of glass, suited alike for the most fastidious child of luxury and for the rude taste of the savage, such as the African trader finds a ready market for. Here is a vast storehouse, a museum, in which are to be found in every variety of material, size, ornament and finish, all those many articles which we term fancy goods, but many of which are as necessary to comfort, decency, and even health itself, as the bulkier staples. When we consider how numerous these articles are, we feel no surprise that it takes one of the largest warehouses in the country to hold them all.

Time and space will not allow us to enumerate one-half of the articles to be found there. We should have to copy at length one of their catalogues, which are printed in English, French, and Spanish, to give a complete idea of the extent of Cary & Co.'s establishment. We will only add that almost every travelling merchant in the country might drive up his wagon, or bring his pack to this warehouse, and fill them there with everything to suit the varying tastes and necessities to be met with on the longest trading peregrination, without going farther, or a second call.

Messrs. Cary & Co. are not only dealers in, but also manufacturers of, many of their articles, such as combs, of every kind. They also supply other manufacturers with tortoise shell, ivory from India and Africa, pearl shell, and materials of the kind.

Nor are their operations confined to the home market, including the south and west, and (since the treaty with Mexico) not excluding California. They send their valuable merchandise to the West Indies, to South America, and to Africa.

Next to the satisfaction of conducting one of the largest, if not the very largest business of the kind in the country, must be that of having so beautiful an edifice to conduct it in, a building uniting every convenience in its business arrangements, with all the elegance and ornament compatible with the rules of store architecture, and giving evidence at once of the good taste and wealth of the proprietors. But a personal inspection of the building and premises will afford a much better idea of the utility and beauty of the structure, and of the extent of this branch of trade, than any statements, with pen or pencil, that we can give in the pages of the Merchants' Magazine.

THE PHILADELPHIA MERCANTILE LIBRARY COMPANY.

The twenty-sixth anniversary of this flourishing, well-managed institution took place on Tuesday, the 9th of January, 1849—Thomas Robbins, Esq., presiding, and William Borgh acting as secretary. The report of the Directors, an able, business-like document, which we shall endeavor to publish in the next number of the *Merchants' Magazine*, was read and accepted, and the following gentlemen were elected directors for the ensuing year:—Thomas P. Cope, Isaac Barton, Charles S. Wood, Joseph Patterson, Robert F. Walsh, John J. Thompson, J. L. Erirnger, William L. Schaeffer, William E Bowen, Joseph C. Grubb, Marmaduke Moore, William Ashbridge, W. C. Patterson. *Treasurer*, John Fausset.

The President of the Company, Thomas P. Cope, Esq., one of the most eminent and worthy merchants of Philadelphia, has, we believe, occupied the chair of this institution for many years, if not from its start; and we rejoice to notice, by the following resolution, adopted at the annual meeting, and the correspondence between that gentleman

and the committee, which we also subjoin, that the services of the venerable President are fully appreciated. The compliment paid to him in procuring two portraits, to be preserved among the members of the Company, is alike creditable to him and his associates.

The following resolution, presented by Samuel C. Morton, Esq., was unanimously adopted, to wit:—

Resolved, "That the thanks of the members be, and they are hereby tendered the Board of Directors, for their having caused to be placed in the Library Room the admirably executed portrait, by John Nagle, of our highly valued President, THOMAS P. COPE, ESQ., and that they be requested to furnish for publication with the proceedings of this meeting, any correspondence which may have taken place in connection therewith."

The following is the correspondence referred to in the resolution:—

Philadelphia, August 18th, 1847.

THOMAS P. COPE, ESQ.

DEAR SIR:—The undersigned have been appointed a committee, in behalf of your Co-Directors of the Mercantile Library Company, to request you to sit for a portrait, to which the Directors purpose assigning a permanent place in the Library Room.

We trust, esteemed sir, that you will respond favorably to the wish of your fellow Directors, who, through the undersigned, have made the necessary arrangements with the distinguished artist, Mr. John Nagle, who is prepared to carry out their wishes at any time that may best suit your convenience.

It has long been a desire of the Directors to procure for the institution the lineaments of one who is so intimately connected with its history.

This desire is largely shared by the members, who, in common with the directors, are solicitous that those who come after them may possess the pictured resemblance of one whose career as a Philadelphia merchant illustrated for more than half a century all the eminent qualities that should ever accompany that time-honored appellation.

The cheering example which your career affords the young, showing, as it does, that intelligence, industry, and probity beget, as their legitimate fruits, the prosperity of their possessor, and the esteem of mankind, will not be lost upon future times, when your name will have become an honored tradition, indicative of all the virtues. Then the struggling and care-worn merchant, surrounded by business perils, and beset by insidious temptations, may nobly surmount his difficulties, and stand erect in stainless integrity at the recollection of departed excellence.

It is, however, unnecessary for us to dwell upon those traits which for more than fifty years have identified your name, not only with the mercantile enterprise, but with every scheme of general usefulness, and with every benevolent institution of our fair city. As your co-directors in the "Mercantile Library Company," we would, however, bear testimony to the zeal with which you have uniformly promoted the welfare of the Company. As one of its founders, and during the greater part of its existence, its respected President, your kind countenance and judicious counsel have greatly aided to place the Company in its present flourishing condition. Your fellow members of the board have noticed with constant admiration, that neither advanced age nor inclement weather, nor varied engagements, have ever detained you from its meetings; thus evincing your deep interest in the association, and affording an example which has not been without its proper influence.

Your answer at an early day is respectfully requested by Your friends,

ROBERT F. WALSH,
WILLIAM L. SCHAFFER, } *Committee.*

The subjoined is Mr. Cope's reply:—

Calcin Hook, Eighth Mo. 23d, 1847.

MY DEAR FRIENDS:—Your letter of the 18th instant came into my possession yesterday, at this my quiet retreat, and I can truly say that I am deeply affected by the flattering kindness of its contents.

Unambitious and undeserving of the distinction you propose to assign me, permit me to add that, if the possession of my portrait can confer pleasure on gentlemen with whom I have been so long and so agreeably associated, I should, in my own estimation, justly incur the odium of ingratitude, were I, from any fastidious notion of my own, to refuse compliance with your request.

I expect soon to return with my family to the city, when I will cheerfully submit myself to your disposal. Your sincere friend, THOMAS P. COPE.

To ROBERT F. WALSH, WILLIAM L. SCHAFFER, *Committee.*

THE BOOK TRADE.

1.—*The History of England from the Accession of James II.* By T. BABINGTON MACAULEY. New York: Harper & Brothers.

The Brothers Harper have brought out, simultaneously with its appearance in England, Macauley's history of that kingdom from James II. to the beginning of the present century. The London *Athenæum* thus speaks of this great work:—

"Great expectations were raised by the announcement of this work, and assuredly they will not be disappointed. If the author exhibits here less of that sparkling brilliancy which lends such a charm to his historical and biographical essays, he compensates for its absence by displaying greater power in the analysis of evidence, and in detecting the import of facts which had stood isolated, and had, therefore, to a great extent been neglected. As in his former works, Mr. Macauley shows skill and acuteness in the delineation of character. He seizes not merely on those salient points which serve to trace the outline of mental feature, but on the more minute and delicate traits which give to the portrait individuality and expression. He renders us as familiar with the men of the Revolution as if they had been personal acquaintances. We estimate this quality highly, because the course and the consequences of the Revolution of 1688 were guided and molded more by the character of the persons engaged in it, and less by the mere force of circumstances, than any event of equal magnitude recorded in history.

2.—*History of Alexander the Great.* By JACOB ABBOTT. With Engravings. 18mo., pp. 278. New York: Harper & Brothers.

This volume, the third of Mr. Abbott's historical series, is devoted to the life of Alexander the Great, who, in the brief period of twelve years, ran through a series of exploits "which were so bold, so romantic, and which led him into such adventures in scenes of the greatest magnificence and splendor, that all the world looked on with astonishment then, and mankind have continued to read the story since, from age to age, with the greatest interest and attention." This admirable series of histories is designed for young persons between the ages of fifteen and twenty-five, who wish to become acquainted with the leading events in the history of the old world and of ancient times, but who, coming upon the stage in this land and at this period, have ideas and conceptions so widely different from those of other nations and of other times, that a mere republication of existing accounts is not what they require. The story of Alexander, as here told, is peculiarly well adapted to answer the purpose intended by the author.

3.—*Benjamin Franklin: his Autobiography; with a Narrative of his Public Life and Services.* By Rev. H. HASTINGS WELD. With numerous Designs by J. G. CHAPMAN. 8vo., pp. 512. New York: Harper & Brothers.

The first number of this illustrated Life of Franklin, comprising his Autobiography and a Narrative of his Public Life and Services, by H. Hastings Weld, has just been published. The Autobiography of Franklin is replete with lessons of wisdom and instruction for young men setting out in life; the publishers could not, therefore, render a more acceptable service to the rising generation than that of re-producing the work in its present beautiful and attractive form; for, to use the language of Lord Brougham, "his memoir is the most natural, ingenious, and interesting autobiography in our language." The illustrations are the best of the kind we have ever seen, and the engraver has done full justice to designs of Chapman. The work will be completed in eight parts, and altogether form a beautiful octavo volume of more than five hundred pages.

4.—*The American Ladies' and Gentlemen's Manual of Elegance, Fashion, and True Politeness.* By CHARLES WILLSON DAY. 18mo., pp. 154. Buffalo: George H. Derby & Co.

This work, the production of an American, was originally published in London, where it passed through twenty-two editions, and has, we are credibly informed, been made the standard of modern society in England. It has been attributed to Count d'Orsay. To settle this erroneous statement, the real author has been induced to put his name to this American edition. We agree with the author in his brief prefatory address to the American public, that "it can hurt no one, but benefit many, for them to compare the usages of polished nations with their own; and to consider whether a common sense application of the ordinary observances of good society, as practised in older countries, cannot materially elevate, in the social scale, the aspiring and the successful." We commend it to all who are desirous of rendering themselves acceptable to fashionable society.

5.—*The American Statesman.* Edited by ABIJAH INGRAHAM and WILLIAM J. TENNY.

The plan of this paper, which was commenced on the first week of the present year, differs essentially, in many of its features, from any other journal published in this or any other country. Although neutral in party politics, its editors discuss with fearless ability every great question of political and social reform that engages the attention of the statesman, or agitates the minds of the masses. The editors, whatever may be their views, have no fear of truth, but lay before their readers the strongest arguments brought forward on all sides of all important questions; so that a "subscriber to the '*American Statesman*' will have before him in a single sheet all the important political matter that he would get, should he subscribe for the principal leading and influential journals of both parties." It includes in its plan the record of "important documents relating to National Legislation; also, the annual Messages of the Governors of the several States, and other documents relating to State Legislation." Another valuable feature of this journal is, the full information it gives of the condition of the arts and sciences, especially such as relate to the practical affairs of daily life. Indeed, no journal heretofore published in this country, covers so broad a field of investigation, or is so comprehensive in its scope. The editors and proprietors, Messrs. INGRAHAM and TENNY, are gentlemen of large experience, liberal views, and great industry; and if merit, moral and intellectual, are the requisites of success, and we believe they are, when properly understood and appreciated, the circulation of their journal will not be surpassed by that of any other in the United States.

6.—*Modern Accomplishments, or the March of Intellect.* By Mrs. CATHARINE SINCLAIR, author of "Modern Society," "Charles Seymour," etc. 12mo., pp. 276. New York: Robert Carter & Brothers.

It was scarcely necessary for Mrs. Sinclair to apologize for the employment of an imaginary history to illustrate and enforce religious duty, by reference to the Great Teacher, who sanctioned it, by his use of parables. A pure mith may embody as great a truth, as the most undisputed solution of a mathematical problem. The design of this domestic story, which we state in her own language, is to separate the essentials of religious conduct from its excrescences,—to distinguish feeling from imagination,—to contrast the hypochondriacal fanaticism of a disordered fancy with the purifying influence of what she considers an enlightened faith,—to show how frequently well-intentioned persons "know not what manner of spirit they are of,"—how the Christian temper may be substantially contravened, while its dictates are professedly obeyed;—and finally, how the language of scripture may be perversely misquoted to support a line of conduct, which its benign and gentle principles uniformly condemn. Its teachings, if heeded, will doubtless benefit the morals of many readers.

7.—*American Text-Book for Letters.* By NATHANIEL DEARBORN. Boston: Nathaniel Dearborn.

The design of this beautiful work is to furnish the most correct method of producing the various letters now in use with the pen, brush, chisel, or graver; and may, therefore, be considered an indispensable handbook for the penman, the painter, the sculptor, and the artist. Mr. Dearborn is one of the oldest and best engravers in the city of Boston; and the present work, which has cost him much time and money, reflects great credit on his industry and skill. It has already passed through several large editions, and received the highest commendations of the press, and of distinguished individuals of taste and discrimination. It is at once a copy-book for schools, and a manual, more perfect in its kind than anything we have ever seen for all persons engaged in any of the arts which require the formation of letters. It also embraces Pitman's system of Phonography, and complete rules for a correct understanding of all the principles evolved in the work.

8.—*Grayslaer; a Romance of the Mohawk.* By CHARLES FENNO HOFFMAN, author of "A Winter in the West," "Wild Scenes of the Forest and Prairie," etc., etc. Fourth Edition. 12mo., pp. 539. New York: Baker & Scribner.

In this work, which has already passed through four editions, Mr. Hoffman has succeeded in blending the historical novel with the domestic love tale, stamping "the unity of a dramatic poem by a continuous moral purpose, devolved through the action of sentiment wrought up to a climax of passion." The wild border annals of the State of New York, it seems, afforded the historical materials, and the criminal trials of Kentucky furnished the elements of a strange tale of ill-regulated affections. We have long desired to possess this, and the other volumes of Mr. Hoffman's writings, in a form worthy of preservation in our library; and we thank the enterprising publishers for the handsome style of its publication.

9.—*University Sermons. Sermons delivered in the Chapel of Brown University.* By Francis Wayland, President of the University. 12mo., pp. 328. Boston: Gould, Kendall & Lincoln.

This volume contains twenty-one sermons, written at various intervals during a period of four years, and with the exception of two, originally prepared for, and delivered in the college chapel, before the officers and students of Brown University. The exception treats of subjects at present of universal interest, and consists of two sermons on the revolutions in Europe, written immediately after the accounts were received of the events to which they relate. The design of the learned author in the preparation of most of the discourses was "to present a plain exhibition of the way of salvation by Christ." They bear the impress of the able logician, the accomplished scholar, and the sincere Christian, and contain views on some points of Christian doctrine and ethics, that Christians of most of the sects into which Christendom is divided will gladly accept, although differing with the learned divine in regard to some of the prominent dogmas inculcated in the collection. The Christian and philanthropic views of the preacher touching the revolutions of Europe will command the respect of many who do not sympathize with his theological sentiments.

10.—*The Journal of the Pilgrims at Plymouth, in New England, in* 1620. *Reprinted from the Original Volume. With Historical and Local Illustrations of Providences, Principles, and Persons.* By George B. Cheever, D. D. 12mo., pp. 369. New York: John Wiley.

This is an interesting and valuable contribution to the New England historical literature. The Journal of the Pilgrims, which occupies the first one hundred pages of the volume, is a *fac simile* reprint from the London edition of 1622. In the "historical and local illustrations of Principles, Providences, and Persons," occupying full two-thirds of the volume, Mr. Cheever attempts "to trace the wonderful providential discipline of God with the colony of Plymouth, and to some extent with that of Massachusetts, showing the constant action of those principles of piety for which they suffered, under the supremacy of which they labored, and by which they were successful."

11.—*The Young Patroon; or Christmas in* 1690. *A Tale of New York.* By the Author of "First of the Knickerbockers." Pp. 142. New York: George P. Putnam.

This story, we are told, was written prior to its recent predecessor, "The First of the Knickerbockers," noticed in a former number of this Magazine. The scene of the story is laid in the city of New York; the time, more than a hundred and fifty years ago. The author is evidently a lineal descendant of the Knickerbockers, and describes his "worthy fathers, the founders of the great metropolis, the explorers of these majestic rivers, the hospitable, humane, generous, stubborn, obstinate 'old smokers of Manhattan,'" with a vividness that would almost convince the sceptical that the author was a resuscitated Knickerbocker. We trust he has more of the same sort for "home consumption."

12.—*The Universal Guide to Health, by a Rational Course of Food and Diet.* By Andrew Combe, M. D., author of "Combe's Physiology," etc. 12mo., pp. 310. Buffalo: George H. Derby & Co.

The works of Dr. Combe enjoy, deservedly, a world-wide reputation. No writer has done more to advance the moral and physical interests of mankind in our time. The present work, which, since its appearance in 1836, has passed through seven American editions, is essentially a continuation of the work first published by Dr. Combe in 1834, under the title of "Principles of Physiology applied to the Preservation of Health and to the Improvement of Physical and Mental Education;" and the object the same, namely, "to lay before the public a plain and intelligible description of the structure and uses of some of the more important organs of the human body, and to show how information of this kind may be usefully applied in practical life." It is a handsome, readable edition of a very excellent and useful work.

13.—*The Prisoner's Friend: a Monthly Magazine devoted to Criminal Reform, Philosophy, Literature, Science, and Art.* Charles Spear, Editor and Proprietor. Boston: Published by the Editor.

This work is now published monthly in the octavo form. Its design is indicated in the title quoted. Its editor is deeply imbued with the reformatory and philanthropic spirit of the nineteenth century, and he brings to bear, upon all matters pertaining to criminal reform, a deep and abiding faith in that Gospel, which teaches us that the only efficient method to overcome evil is by doing good. Philosophy, literature, science, and art, in the head, hands, and heart of the editor, are all consecrated to the cause of Humanity. God speed and prosper his noble mission!

14.—*Proverbs for the People; or, Illustration of Practical Goodness, drawn from the Book of Wisdom.* By E. L. MAGOON, author of "The Orators of the American Revolution. 12mo., pp. 272. Boston: Gould, Kendall & Lincoln.

The design of this work is "to discuss the exalted principles of Christian morality in a manner adapted to the comprehension of the great mass of mankind." The work is divided into seventeen chapters, each of which is devoted to a distinct virtue or vice. For instance, one chapter is entitled "Captiousness; or the Censorious Man;" another, "Kindness, or the Hero who best Conquers;" another, "Frugality, or the Beauty of Old Age;" and so on, including in the catalogue the virtues of Integrity, Industry, Perseverance, Sincerity, and the vices of pride, extravagance, vanity, idleness, falsehood, deceit, flattery, etc. The author has grouped the teaching of the Christian and Jewish Scriptures, as well as those of ethical writers, ancient sages, and modern poets, and woven them into the symmetrical essay with the web of his own thoughts, suggested by the subject or the experience of a life of observation and reflection.

15.—*Theory and Practice of Teaching; or Motives and Methods of good School Keeping.* By DAVID P. PAGE, A. M., Principal of the State Normal School, Albany, New York. 8vo., pp. 349. New York: A. S. Barnes & Co.

This is the tenth edition of this work, a fact which affords pretty conclusive evidence of the estimation in which it is held by the public. For further evidence of its utility, it is only necessary to refer to the work itself—to "read, learn, mark, and inwardly digest" its pages, which contain not only the theory, but the practice of teaching, derived by Mr. Page from the realities of the school-room during some twenty years of actual service as a teacher. The spirit, responsibility, habits, and literary qualifications of the teacher are described; the modes of teaching, conducting recitations, and exciting an interest in study, are pointed out; school government and school arrangements, and the relations of the teacher to his scholars, to parents, and the members of his profession, are not omitted, but are treated in a clear and logical manner. It seems to cover the whole subject; and appears to us an indispensable *vade mecum* for all who assume the responsible duties of a teacher, either in the family, the common school, or the higher academy.

16.—*Outlines of a New System of Physiognomy. Illustrated by numerous Engravings, indicating the Signs of the different Mental Faculties.* By J. W. REDFIELD, M. D. 8vo., pp. 96. New York: J. S. Redfield.

We are not prepared to accept, much less to reject, Dr. Redfield's system of physiognomy, as partially laid down in this manual, which gives "but a brief outline of the subject so far as relates to the face." But we must confess that the theory is not only plausible, but, as explained and illustrated by Dr. Redfield, appears in the main quite natural. Perhaps that is admitting almost as much as the learned author would desire, as he does not "claim to have discovered the whole of Physiognomy," or that he "has not made some observations that will need correcting." His illustrations are ingenious, and many of them accord well with our rather superficial observation. The work, to say the least, is highly suggestive, and we commend it to all who believe that the "proper study of mankind is man."

17.—*Disturnell's Railroad, Steamboat, and Telegraph Book.* New York: J. Disturnell.

This little manual of Mr. Disturnell embraces full and correct information in reference to all railroads, and steamboat routes, and great lines of travel diverging from the cities of Washington, Baltimore, Philadelphia, New York, Boston, Portland, Albany, Troy, Buffalo, Montreal, etc., with other information useful to travellers, emigrants, etc. It includes, moreover, that new and wonderful improvement of the age, the Magnetic Telegraph, embracing all the principal lines in the United States and Canada, giving the regulations and charges, tables of distances, etc. Mr. Disturnell is indefatigable in his exertions to procure correct information, by applying, either by letter or personally, to the fountain head; and the work, a new edition of which is published every other month, brings the information down to within a day or two of its publication.

18.—*Merry-Mount; a Romance of the Massachusetts Colony.* 12mo., pp. 471. Boston: James Munroe & Co.

This romance is founded on the early history of New England, or, as the author styles it, the crepuscular period which immediately preceded the rise of the Massachusetts colony, a period with more of the elements of romance than any subsequent epoch. The interest of the story is well sustained throughout; and as illustrative of the early colonial history of the country, it will be read with interest, while it undoubtedly throws some light over the Pilgrim past.

19.—*History of the War between the United States and Mexico, from the Commencement of Hostilities to the Ratification of the Treaty of Peace.* By JOHN S. JENKINS, author of "The Generals of the Last War with Great Britain," etc. 12mo., pp. 506. Auburn: Derby, Miller, & Co.

During the progress of the war between the United States and Mexico, and near its close, the public were favored with numerous histories of the events, as well as with biographies of the men who figured in its brilliant scenes and stirring events; but most of these accounts were hastily prepared, and necessarily incomplete and imperfect. The author of this volume seems to have waited for the final closing of that war, a circumstance more favorable to the preparation of a complete and full history, and one which enabled him to avail himself of all the documents, as well as of the labors of other compilers and authors; and on the whole, we should say that he has succeeded in furnishing a more reliable and complete account of the war than any of his predecessors. The volume is handsomely printed, and copiously illustrated with portraits of distinguished officers and battle scenes.

20.—*Young Men Admonished; in a Series of Lectures.* By JOSEPH P. THOMPSON, Pastor of the Broadway Tabernacle Church. 18mo., pp. 278. New York: Leavitt, Trow, & Co.

This volume contains seven lectures, delivered by the author in the Broadway Tabernacle, and were listened to with deep interest by large audiences, composed, for the most part, of young men. The three first are devoted to a consideration of the temptations to dishonesty, to intemperance, and to gambling; the fourth, to "profaneness and Sabbath-breaking;" the fifth, "living for pleasure;" the sixth is entitled "life progressive;" the seventh, "the Bible the young man's guide." The evils and dangers of dishonesty, intemperance, and gambling, are forcibly and eloquently depicted, in strong but truthful language. The volume should be read by every young man in our commercial cities, and the merchant would do well to place it in the hands of every clerk in his employ. We have marked several passages for a place under our "Mercantile Miscellanies."

21.—*The Art Journal; Art-Union Monthly Journal of Arts.* London: Chapman & Hall. New York: John P. Ridner, Art-Union Building, 497 Broadway.

The present number (December) of the Art Journal completes the tenth volume, and although there would seem to be little room, we notice, by an advertisement on the cover, that the work is to be improved, and enlarged in size the ensuing year, commencing with January, 1849. As a consequence of this enlargement and improvement, the price is to be increased to eight dollars and a half per annum. We have often spoken in terms of the highest commendation of this work, and we see no reason to withhold or measure our praise. The engravings alone are richly worth the subscription price. We know of no similar work that will compare with it in artistical beauty or literary excellence.

22.—*The Vision of Sir Launfal.* By JAMES RUSSELL LOWELL. 12mo., pp. 27. Cambridge: George Nichols.

A small book this, but with far more true poetry than many a larger volume. The plot is founded on the mythology of the Romancers, the Holy Grail, the cup out of which Jesus partook of the last supper with his disciples. We hope soon to have a beautiful illustrated edition of Lowell, after the style of Cary and Hart's editions of Longfellow, Willis, Sigourney, or Muzzy's splendid edition of Whittier's poems.

23.—*Rhymes of Travel. Ballads and Poems.* By BAYARD TAYLOR, author of "Views A-foot," etc. 12mo., pp. 152. New York: George P. Putnam.

A collection of the poetical effusions of a young and promising writer. The Rhymes of Travel "give expression to thoughts and emotions inspired" by the author's journey in Europe. Simplicity and naturalness, combined with a smooth and graceful verse, are here rendered subservient to pure and gentle thoughts. A pleasant portrait fronts the title-page.

IRVING'S WORKS.—George P. Putnam published on the first of January, 1849, the second volume of "The Life and Voyages of Christopher Columbus," forming the fifth volume of the splendid edition of Irving's Works, now in course of publication. This volume contains one hundred pages more than was originally estimated as the average of the series, and therefore the price is necessarily increased to $1 50. The next volume will comprise the whole of the "Companions of Columbus," and the Appendix. This is probably the last revised edition of Irving's complete works, and the most beautiful that has yet been published. It is illustrated with a chart of the West Indies, with the adjacent coast of South America, showing the tracks of Columbus.

24.—*Elements of Chemistry. With Illustrations of the Chemical Phenomena of Daily Life, and a series of Practical Experiments.* By D. B. Reid, M. D., F. R. S. E. *Chambers' Educational Course, enlarged and improved.* By D. M. Reese, M. D., LL. D. New York: A. S. Barnes & Co.

The design of this volume, like all in this series of "educational works," is to acquaint the young with all the physical or natural sciences, by placing in their hands a separate volume devoted to each. The design of the present volume is to "facilitate the introduction of a course of Chemistry, as an elementary branch of education, in all schools and academies, and to lay a foundation for the young people's future progress in science." We have no hesitation in saying that the work is well calculated to answer the objects contemplated by the learned Scotchman who compiled, and the American editor, who has improved and adapted it to the use of schools in the United States.

25.—*Elements of Geology.* By David Page. *Chambers' Educational Course, enlarged and improved.* By D. M. Reese, M. D., LL. D. New York: A. S. Barnes & Co.

The facts of the science of Geology, which must ever constitute the chief features of an elementary work, are here presented "in a form of simplicity and attractiveness which admirably adapts the subject to the young," thus "rendering it a most agreeable and useful study." The handsome and substantial style of publication adopted by the liberal and enterprising house of A. S. Barnes & Co. is worthy of all imitation.

26.—*Posthumous Works of the Rev. Thomas Chalmers, D. D., LL. D.* Edited by the Rev. William Hanna, LL. D. Vol. V. Sabbath Scripture Readings. 12mo., pp. 507. New York: Harper & Brothers.

The present volume, the fifth of the series, consists of practical comments on various passages in the books of the Old Testament. The piety, learning, and ability of the author, it is scarcely necessary to say, impart to all his thoughts, opinions, views and feelings an interest and an importance, that must command the respect, if not the common consent of the entire Christian world.

27.—*The Art-Journal; Art-Union Monthly Journal of Arts.* New York: J. P. Ridner.

The last number of this work contains three beautiful line engravings in the best style of the art, viz: Pilgrims in Sight of Home, engraved by C. W. Sharp, from the picture by C. L. Eastlake, R. A.; Eve at the Fountain, engraved by W. Rolfe, from the statue by E. H. Baily, R. A.; and Innocence, by C. W. Wagstaffe, from the picture, by G. B. Greuze. The number is embellished with a great number of fine illustrations, the finest specimens of wood engraving we have ever seen.

28.—*The Oak Openings; or the Bee-Hunter.* By James Fenimore Cooper. 2 vols. 12mo. New York: Burgess, Stringer, & Co.

If the author of the "Pioneers," the "Last of the Mohicans," "Path-Finder," etc., etc., has lost any of his vigor, it is more than we can discover. Certainly this last effort, if we do not greatly err in our estimate, is equal to any of the author's earlier productions. Cooper, after all, is a novelist of which his countrymen may well be proud.

29.—*The Memoirs of a Physician.* By Alexandre Dumas, author of "Monte Cristo," "The Two Dianas," "George the Planter," "The Three Guardsmen," etc. etc. 8vo., pp. 347. New York: Stringer & Townsend.

One of Dumas' most exciting tales, from the English edition, said to be translated with remarkable fidelity. It is interspersed with a great number of engraved illustrations, copied from those of the French edition of the work.

30.—*The Legends of Montauk.* By J. A. Ayres. With an Historical Appendix. 8vo., pp. 128. New York: George P. Putnam.

An attempt of the author, who visited the peninsula of Montauk during the summers of 1846–7, to recall the pleasant hours spent on that romantic spot. The legends are told in easy and graceful verse, and are well calculated to create an interest in the history, the traditions, and the scenery of this peculiar country.

31.—*The Triad; or Atheism, Polytheism, and Infidelity.* By Rev. Timothy A. Taylor. Boston: James French.

This little volume is designed by its author as a companion of "The Triune," noticed above, in which he presented evidence of the Divine existence, and proof that the Bible is the word of God. The concise and comprehensive form in which the subjects are presented, will recommend them to many who cannot find time to peruse more elaborate works.