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PETROLEUM, OLD AND NEW.

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PETROLEUM belongs to an extensive family, ancient as the hills, and honorable in history, whose surname is Bitumen. It has mixed and mingled with earthy matters, with fluids and with gases, till there's a fine tribe of half-bloods indeed, and it is hard work to tell who's who. In a pure state, however, they may be confined to four varieties. The most solid, which varies from the hardness of stone to the elasticity of india-rubber, is bitumen proper; the next in density, more plastic and pitchy, is asphaltum; the third, a thick fluid, is Petroleum; the last and most liquid is naphtha. It takes a good many chemical formulas to express the precise component parts of each variety. Scientific people, who know so much more than the rest of us, dote upon whole battalions of initial letters, each with a little fraction tied to its heel; but if they had been out of school ever so many years, and had not studied much but life since, and that in a limited edition, they would be satisfied, as we are, with knowing that the substance in question contains a great amount of carbon, a sprinkling of hydrogen, a breath of oxygen, and sometimes the merest suspicion of nitrogen.

The difference between the most solid and most liquid forms, is so slight, chemically, as to be hardly worth mentioning, the temperature of the air, and the length of time for which they have been exposed to it, changing their consistency very greatly. They are found in widely separated localities all over the world, and are almost invariably associated with springs of sulphurous or salt water, and with jets of carburett hydrogen gas. In some places they ooze slowly through the soil in scanty drops, or exude through fissures in the rocks; in others, they bubble up in quiet springs, or spout out from their subterraneous reservoirs with the vehemence of a fountain. As they spread away from the point of egress they cool and harden, until they frequently become entirely solidified, from which it may be in-

ferred that all the masses of bitumen found upon the surface of the earth, or within its depths, were once in a liquid state.

The very earliest record we have of a bituminous district, is in the account of the Vale of Siddim, now sunk beneath the waves of the Dead Sea, with its four flourishing cities. It is said to have been full of "slime pits," so that when the kings of Sodom and Gomorrah were pursued by the four kings of the East, they fled there and perished. It may be that the doomed cities themselves were built with the asphaltic cement, so much used in those early times, and that this, with the bituminous nature of the soil about them, rendered the whole valley a ready prey to the ravages of the avenging flames: for when the fiat of destruction had gone forth, and "Abram arose and looked toward the land of the plain, the smoke of the country went up as the smoke of a furnace." Volcanic action devastated the fair valley, and sunk it into the earth, and the Dead Sea covered it like a vast shroud.

Modern pilgrims to the Holy Land, are not satisfied like those of old, with bringing back a scollop-shell or a branch of palm; they return with whole coffers of curiosities, conspicuous among which are the peculiar Greek rosaries and ornaments made in the convents at Jerusalem, out of hardened pieces of asphaltum, from the shores of the Dead Sea. The asphaltum is found in profusion upon the barren margin of the sea, or floating in its dense, bitter waters. On the southern shore are chasms and pits filled with slimy, half-fused bitumen, where unwary travelers have been lost. Hardly a vestige of vegetation can be seen upon the blighted soil, and mountains and plains are alike dreary and death-like. It is a wilderness of sand and salt, rock and asphaltum; the desert is all about it, and there is no human habitation near, except the desolate convent of Mar Saba, whose mournful bell tolls a nightly requiem for the souls of four cities.

The era of the first use of bitumen, dates back several hundred years before the record of its existence in the Vale of Siddim. The builders of the Tower of Babel used bricks made of clay, and "slime for mortar." A little below the heap of ruins supposed to be those of the half-built Tower, upon the right bank of the Euphrates, are the celebrated Fountains of Is. Here the Petroleum has bubbled up, brown and oily, from the time of the flood to the present day, cooling as it leaves the fountain, till it congeals into asphaltum. ALEXANDER, and TRAJAN, and JULIAN, in turn wondered at this marvel of nature. It was from this source, without a doubt, that the builders of Babel gathered their slimy mortar, and the Babylonians made from it an imperishable cement, with which all their amazing works were built. The walls of Babylon were made with it, those mighty walls, which enclosed two hundred and twenty-five square miles of land, and the population of a little planet; they were nearly a hundred feet thick at the base, so broad on the top that eight horses abreast could run there, and as tall as two Niagara Falls. NEBUCHADNEZZAR was the great builder-king of ancient history; his skill designed and carried out the marvelous temple of Belus; he hemmed in the encroaching waters of the Tigris and Euphrates, with dykes of solid masonry; he built a reservoir, one hundred and forty miles in circumference, and made a vast canal broad and deep as a river and five hundred miles long, which stretched from the Euphrates to the Persian Gulf. All these were laid and cemented with the imperishable asphaltum. With this too, he built the royal palace, indulging his kingly fancy with a house six miles in circumference, and inclosed by three walls.

It was an extravagant fancy, even for a king, and the royal husband had hardly satisfied it, when the royal wife took a fancy too. Queen AMYTIS wanted a garden; she was tired of the dull plain of Shinar; her homesick heart went back to Ecbatana, the mountainous home of her childhood, and she longed for something that resembled it, something high and verdurous, a pleasure ground upon a hill. Petted women will have expensive fancies at times. CLEOPATRA'S pickle of pearls was an acrid folly, and CATHERINE'S ice-palace a frigid absurdity, but the caprice of Queen AMYTIS was only a good impulse carried a little too far. The unperverted heart turns as naturally to a garden, as the heliotrope turns to the sun. Occasionally one finds in a city a stony-hearted wretch calling himself a man, who admires the intricacies of a Belgian pavement, especially at the corners, more than the mosaic of the most radiant parterre. Such a monster should not be suffered to run at large in an unsuspecting community; he should be drowned in a gutter, or hung from a derrick, or sent into quarantine, for he is a foe to civilization, to morality, and to religion. When the work of creation was done, did not the Lord God himself plant a garden and place therein two guileless souls, to delight in its beauty, and to guide its growth? And when through disobedience punishment became necessary, was it not a part of that punishment that the erring ones were sent out of the garden into a land that brought forth thorns and thistles? Queen AMYTIS wanted a garden, and the king said she should have one. It was built within the palace walls. There was never seen such a pleasure ground as this; vast numbers of pillars arched and vaulted, cemented with the indestructible asphaltum, which made whole columns like one stone for strength, sustained terrace after terrace, each higher than the one before it, till the last stood four hundred feet from the ground. Upon these various platforms were planted exquisite oriental shrubs, fragrant flowers, and waving palms; a great pyramid of verdure, which looked at a distance like a symmetrical mountain in the last excellence of culture. Artificial irrigation was a pet science among the ancients, and water for the garden was raised by machinery from the Euphrates four hundred feet below. AMYTIS was content with her mountain garden; people came from distant nations to see them, and even the self-satisfied Greeks, who always thought wisdom would die with them, acknowledged them to be worthy of a place among the wonders of the world. When BELSHAZZAR had succeeded to the kingdom of his grandfather, and was feasting a thousand of his nobles in the very palace that NEBUCHADNEZZAR had built "by the might of his power for the glory of his majesty," while they drank wine and praised the gods of gold and of silver, in the same hour came forth fingers of a man's hand and wrote upon the plaster of the wall of the king's palace. That was the last night of the last medean king. AMYTIS and NEBUCHADNEZZAR are names of the past; the gardens and great works of masonry, with all their admirers, crumbled into common dust centuries since; but still about the ruins of Babylon are found scattered fragments of the ancient bricks, and numberless pieces of the asphaltum, in which they were laid, as untouched by time, as when they were first gathered upon the cool edges of the Fountain of Is.

The Babylonians were not alone in their use of bituminous substances; for the Egyptians, if they employed them less largely, used them more perpetually and more strangely. These Ethiops must have been an extremely eccentric people; square in their features, crooked in their morals, and ut-

terly zig-zag in religion. Their spiritual state was quite obscure; they ordained priests of polywogs, and offered oblations to blue-tailed flies, with serene joy at their own piety. Among many other peculiarities of doctrine, they appear to have had a violent prejudice against allowing dust to return to dust, under the impression that the disembodied spirit, came back to its earthly tenement, after a lapse of years. From this belief, arose the practice of embalming the dead, in which process great quantities of bitumen were used. Not only was every human being that died embalmed, but also all the animals, reptiles, and insects that were considered sacred.

To comprehend in any measure the enormous amount of material required by this universal custom, we must remember the swarming population of Egypt; the average number of persons to the square mile, was greater than the densest population of modern times. Memphis, where six dynasties of kings flourished and declined through a thousand years, was a nation by itself; and Thebes was even greater—its area covered twenty-two miles, its vast tide of life flowed daily in and out of one hundred gates, and its armed men went out to battle in time of war, in bands of twenty-five thousand through every gate. The mountains about Thebes, especially Gornoo, are tunneled in every direction, with the once gorgeous sepulchers of the Theban kings, and the plainer ones of the multitudes.

In those days, there was a large class of men trained to the trade, skillful and shrewd, who drove a thriving business in embalming. They kept patterns of coffins, and models of mummies, preserved with more or less elegance, which they showed to their patrons. The bereaved customer decided upon the style of embalming, and the number of coffins, according to his affection and the state of his purse. A three hundred dollar mummy would be neat, but not tasteful; eight hundred dollars paid for one that was stylish; twelve hundred dollars secured something decidedly rich, and one at fifteen hundred dollars was gorgeous. They paid their money and took their choice. The first step of the process of embalming, was to hook the brains out at the nostrils with a crooked iron, and the subsequent proceedings are unpleasant to describe. It is enough for a people that does not practice the art, to know that the body was disembowelled with care, its contents preserved with tenderness, its cavities filled with preparations of spices and petroleum, and that it was then exposed to a certain degree of heat, which sent the resinous exhalations into every fiber and tissue. To be thoroughly embalmed, an Egyptian must undergo nearly as many contrary experiences as a London chronometer before it is pronounced infallible. He was heated and cooled, soaked and dried, shaken up and allowed to settle; he was bound in linen bandages from a quarter to a half a mile long, according to his rank, varnished with Petroleum, gilded on the end of his nose and the tips of his toes, laid in a coffin with a beetle at the top and a lizard at the bottom, and lo! a first chop mummy. Nothing could be more soothing to sorrowing friends; the consciousness of possessing the best gotten up mummy of the season could not fail to alleviate the deepest grief. The dear departed was carried to the tomb of his ancestors, and set up against the wall to await the return of the soul. A number of sacred vases surrounded him, (containing the contents aforesaid,) which constituted a private and limited anatomical museum of his own, where he might have the felicity of gazing through ages at all those disagreeable internal arrangements which nature was so respectable as to conceal during life. So they have been waiting, waiting all these years, for the recreant spirit to return,

but nobody has arrived except the marauding traveler, eager for relics. You see they had no one to tell them about the bourne of the undiscovered country, so they are still in a state of expectancy. Kings, who in life were called "Lords of Diadems, greatly glorious," stand there in state, their royal blood replaced by Petroleum, with nothing to reign over but their own small cabinet of physiological curiosities. Priests are there, brown and plenty as herrings, in sanctified coffins, ornate with the insect deities of Egypt. Beaux of the Hyksos dynasty, repose in the remnants of trim splendor, in blessed unconsciousness that the gold on their fastidious noses is quite tarnished by the dampness of centuries. There too, are the belles of three thousand years ago; gay creatures, who coquetted with Memnon and kissed their fingers to Sesostris; the bloom that belongs to belles has given place to a dusky bituminous hue, and they are all brunettes together; the once soft hair, is stiff and lustreless as withered grass, the armllets have corroded on their brown shiny arms, yet they still keep the look they wore in life, and continue to welcome all visitors with the expression of suave self-possession acquired by a long residence at court.

In Egypt there was no imprisonment for debt, and good securities were therefore in great demand; but both borrowers and lenders had an inexhaustible resource in the catacombs; fast men, who lived a little beyond their income, pawned the mummies of their ancestors, and went into pledge themselves after death, for the benefit of extravagant sons. Time has hardly changed the features of many of these embalmed bodies; the outer bituminous shell is perfect, but brown and brittle as glass. BELZONI says that once, after pushing his way through a narrow passage several hundred feet long, exhausted with his efforts, and sick with the constant contact with dead men's bones, and the dust of crumbled humanity, he ventured to sit down for a moments' rest upon a mummy, but it went crashing through with him like a bandbox.

There has been a good deal of inquiry as to the source from which the Egyptians derived such quantities of spices and bituminous substances as were necessarily used in embalming; their own country may have furnished a large amount of the former, but of the latter there appears as yet, no trace in Egypt. They may have received them from the shores of the Dead Sea, or perhaps, from the distant region of Bakoo, on the borders of the Caspian sea, whose springs of Petroleum are among the most profuse in the world; even the hollows of the surface there, are full of oil, and the shallowest excavation becomes a perpetual fountain. It is, however, more probable that the Egyptians were supplied from the Island of Zante, on the west coast of Greece, of whose wonderful oil springs we have a record more than two thousand years old. Herodotus himself visited them, and afterwards described their wonders. This island, too, is supposed to have furnished the ingredients for the notable Greek Fire, a compound invented by a Syrian, in the seventh century, and used in the defence of Constantinople during two sieges against it, by the Saracens. The horrors of this missile, in those early times, can hardly be conceived by men accustomed to the thunder and lightning of modern warfare, or by women, who live through one Fourth of July celebration annually. Sometimes the mixture was rolled into fire-balls, and projected through copper tubes; oftener, bands of flax were dipped in it, wound about arrows and javelins, and discharged flaming. The scimitar of the Saracen might flash through and through the burning mass, without stopping its course, and the lumbering, mediæval

battering-raids were helpless to resist the fiery flying dragon, that came hissing through the air above them. The Saracens looked upon it as an invention of the Evil one, if indeed, it was not a veritable discharge of live imps, and whole phalanxes of heroes quailed and fled at the sight of it. The secret of its composition was long kept inviolable, transmitted from father to son as an heirloom, or sold to princes at a great price, but it is now considered to have been a simple compound of bitumen, pitch and sulphur.

There is another place as famous for its profuse supplies of Petroleum and Naptha, as Zante or Bakoo. Like them too, its age is unknown, its origin goes back beyond the beginning of history, and the earliest accounts of it speak as if it had always existed. This is in Birmah, in the Rangoon district. Five hundred and twenty wells, sunk in beds of sandy clay and clayey slate, yield every year more than four hundred thousand hogsheads of oil. The huge supply has not only employed hundreds of persons in collecting and refining it, but has given rise to a race and a city of potters. The neighboring town of Rainanghong is chiefly inhabited by them; the soil affords the greatest facilities for their trade, and the oil demands an enormous quantity of vessels. The city is belted and buttressed with great pyramids of earthen jars, waiting to be filled, and large boats are always coming up the Irrawaddy, stowing in and carrying away fat cargoes of the pots of oil. All through Birmah and many other parts of India, it has been used for centuries for purposes of illumination, as well as for medicine, and for rendering timber weather-proof.

In the north of Italy, Amiano and other places have long furnished a profusion of Naptha, and the cities of Genoa and Parma are lighted with it. South of Vesuvius, a spring of Petroleum bubbles up through the sea, and it is, indeed, very generally found floating on the water near volcanoes, or about volcanic islands. In the Island of Trinidad, in the West Indies, Petroleum exhibits a strange freak. Besides exuding from rocks and springs, in the usual way, it has formed a lake between two and three miles in circumference; warm and liquid in the centre, where it is always slowly boiling, but thickening as it recedes from this point, till at the margin it is cold and solid. Persons may walk upon it at pleasure, when the weather is cool, and when it is hot, they have the opportunity of learning by experience how flies feel in molasses. Masses of bitumen are scattered over the ground in the vicinity of the Lake, and stand out among the foliage like rocks of brilliant jet. It has been said by some travelers, that this Lake of Tar, as the inhabitants call it, is underlaid by a bed of coal; an assertion not to be received without further and more scientific examination, as this would render it a peculiar exception to all other localities producing Petroleum in any quantity.

In our own land before its colonization, and perhaps before its discovery by Columbus, the Indians of the Six Nations enjoyed the knowledge and the use of many oil springs about the sources of the Alleghany river. They seem to have collected it chiefly from the surface and banks of two streams, both of which afterwards received the name of Oil Creek; one being in Alleghany County, New York, and the other being in Venango County, Pennsylvania. Along the borders of the latter, there may still be seen the remains of ancient pits, which must have been dug by them to catch the exuding Petroleum; and occasionally a notched pole is found in them, by which they probably went up and down into the pit, as notched poles pass for ladders among savages

everywhere. The Indians employed the oil for medical purposes and in many of their religious ceremonies, but the chief use of the Petroleum was in mixing the rude paints with which they adorned themselves for peace, or made themselves a shade more hideous for war. It was HUMBOLDT, we believe, who found the South American Indians so charmed with the garb of civilization, that they would willingly have adopted it, except for an early prejudice against clothes. They did what seemed to them more advisable, imitated it. One young man was so delighted with the Sunday suit of a sailor, that he immediately had himself painted blue from the neck to the waist, and white from the waist to the ankles, to represent Jack's blue jacket and duck trowsers. Another of more martial inclinations, was captivated by an officer's uniform. It was comparatively easy to paint the coat and pantaloons, but when it came to the double row of military buttons, that was labor indeed. Fortunately, the artist was the young man's mother, and she, patient and proud where her motherliness was concerned, as all women are, toiled on with tireless perseverance, till the toilet was completed, and the happy dandy strutted off, nude as nature and gay as a peacock.

The native air of the Six Nations forced them to wear something thicker than a coat of paint, so they were obliged to limit their adornings to their arms, face, and legs, which they striped, barred, dotted, or daubed, according to taste. Petroleum is frightful to smell, but one must suffer to be handsome, even in the wilderness, so they painted away and didn't mind the odor. After the Atlantic coast from Massachusetts to Georgia was bordered by a broken line of settlements, and after the French had stretched their chain of sixty forts across the country, from Montreal to New Orleans, colonists, both French and English, began to appear in the wilderness, and the Indians sold the Petroleum to the new settlers as a specific for rheumatism and various other affections. The white people called it Seneca oil, after the tribe who chiefly used it as an article of barter, and considered it a rare and very efficacious remedy. From this period we have more accurate knowledge of the modes of securing and using the oil. An olden record tells us, that the popular method of collecting it, was to throw a log across one of the oil-producing streams, to stop the flow of the floating mass upon the surface; when it had accumulated sufficiently they sopped their blankets in it, wrung them out, and sopped them again, till the oil was exhausted. More than a hundred years ago, at the time of the French and Indian war, the commandant of Fort Du Quesne (which stood precisely where Pittsburg now stands,) wrote a letter to MONTCALM, the general of the French troops in Canada, giving a very interesting account of a great Indian assembly on the banks of Oil Creek. At night, after their harangues and wild war-dances, when the darkness was thickest, they set fire to the sheet of oil upon the surface of the creek, and yelled and danced upon its edges. The hills were black around, the sky sombre and starless; the blaze went up in vast sheets and tongues of fire, mingled with swarthy volumes of smoke, and the whole scene was like a startling glimpse into a world of flames and torment, peopled by howling demons.

The early settlers soon learned the localities of the rock oil from the Indians, and collected it themselves in small quantities; the principal spring on Oil Creek, has furnished a yearly supply for medical purposes, never exceeding twenty barrels. It seems not to have occurred to the good people who gathered it, that the quantity might be increased by digging

deeper pits, or the quality improved by distillation. For years they, and others, hovered on the very verge of the great discovery, fairly stumbling over it, but never seeing it. In Ohio, as early as 1818, in boring for salt water, a vein of oil was struck which rushed up so violently, accompanied with jets of gas, that the salt-making had to be stopped. A gentleman of Ohio, recounting the fact some years later, in the *Journal of Science*, said that the oil was already much used for the lamps of workshops, and prophesied a brilliant future for it. Still, no one seems to have taken the idea. Later yet, in 1845, in boring for salt upon the Alleghany, about forty miles above Pittsburg, the rock oil was struck again; but it was only looked upon as a medicine, and sold in ounce bottles at a high price.

It is a strange fact that attention was first directed to the commercial value of Petroleum by the progress of science in another direction. The distillation of bituminous coal and shales had been growing more and more extensive, and successful for years, and the apparent identity of the oil produced from them, with the rock oil, prompted experiments to determine whether the natural oil would not furnish as many and as useful products as the artificial.

One of the springs on Oil Creek was purchased on speculation in 1854, and the oil was tested and reported on, but nothing farther seems to have been done till 1858, when two New Haven gentlemen resolved to continue the search, and one of them, Col. DRAKE, removed to Titusville, and began his arrangements for boring into the rock below the bed of the creek. The process was new and slow, and it was not till August 26th, 1859, that the first oil well struck the Petroleum at the depth of seventy feet. A small pump was introduced, which pumped four hundred gallons a day; this was exchanged for a large one, which furnished one thousand gallons daily; then a steam-engine was applied, and the supply still continued uninterrupted for weeks. Business immediately turned over a new leaf, in Venango County and thereabouts; land rose like a feather, and prices went up out of sight. Every one was going to be rich the day after to-morrow, or as soon as he could get his shaft down. The narrow strips of meadow land on either side of the stream were perforated with wells, and the derricks for working the drills, stood up in the yards and gardens of the villages, as thick as masts in a harbor. French Creek, and a part of the Allegheny river, were found nearly as productive as Oil Creek, and in a little more than a year, two thousand wells had been sunk. Many delays were met with at first, from the caving in of the sandy, clayey soil, and from meeting with quicksands. To avoid these difficulties, and the trouble of timbering the sides, an ingenious method was invented. Iron pipes, from four to six inches across, were driven through the earth to the rock, and the drills were worked through them; when the oil was reached, the pipe guided its egress, or could be furnished with a stop-cock to regulate its flow. The wells varied in depth from sixty feet to six hundred feet; the Empire spring was of the latter depth, with a hose leading from it to a reservoir three hundred feet higher, and the pressure of the gas which issued with the oil, forced it up the whole nine hundred feet. The most profuse vein, the Phillips, yielded three thousand barrels daily, and the others varied from fifty to five hundred barrels. When one became exhausted, the supply was often renewed by drilling a little deeper. In Ohio, not far from the Pennsylvania border, the people had noticed a strong taste of oil in the water of the vicinity, and this, after the success of the wells in Venango County, induced

them to make a similar attempt. Petroleum was reached at the depth of fifty feet, and within six months after this, there had been seven hundred wells sunk. Ritchie and Wirt Counties, in Virginia, have also been found to produce good oil. The first attempt of the kind in New York was made about a year and a half ago, in Alleghany County, near a famous pool which had always been known as the Oil Spring; but before the iron pipe could be driven down to the rock, the oil, mingled with water, rushed up like a fountain. The jets of gas which accompany the Petroleum are often very profuse and very continued, and in Chatauque County they have been secured and made use of to light the town of Fredonia, and the light-house in Portland Harbor on Lake Erie. The Canada oil district has surpassed all the others in the immense amounts it has produced, as well as in the quality of its products. Its greater weight gives it a higher value than that of other districts, as the heavy oils are more valuable for distillation. The wells are situated in low, swampy land, about thirty miles south-east of Port Sarnia on the St. Clair river, and not more than fifty miles from Detroit. It is said that there is already more American than British moneys invested there, and more Michigan men than Canadians, at work. In some of the localities the surface is found to be covered with a stratum of hardened asphaltum two feet in thickness; in others, the ground is submerged to the depth of several inches with the surplus oil from the great wells. The roads, the wharves, the depots, the warehouses everywhere within reach of the great oil regions of Canada or Pennsylvania, have been blocked up, and filled to fullness, with the vast amounts of oil waiting for transportation; the wells on Oil Creek alone are estimated to yield nine hundred thousand barrels a year; the Enniskillen wells are still more productive; the Ohio and New York wells yield less, yet still large amounts. The extent of this mighty ocean of oil may be better understood, when we remember that the entire product of our whale fishery in one of its most prolific years, was not quite four hundred and thirty thousand barrels of sperm and whale oil together.

The source of these vast supplies of oil has been much discussed, and there are still some points in their history which remain obscure. We trace their remote origin to the great forests of antiquity, whose shrubs were trees, and whose trees were giants; we know their greatness by the casts of their mighty trunks, and the silhouettes of their huge leaves, which we find in our coal mines. Submerged and subjected to certain strange agencies, the vast, rank forest turned slowly into coal. Such a change involves a separation of carbon and hydrogen, sometimes as gas, sometimes as oil, or as both combined. Gravity would force the fluid to seek the lowest level it could find, through every crack and fissure, which accounts for its being found not only below but often remote from the coal deposits. Under other circumstances, the pressure of water from beneath, or the volatile nature of the gas which accompanies the oil, force it up, into the highest attainable level, thus bringing it often into strata above the coal measures. Just how, or when, or why, these wonderful transitions took place may never be definitely known; for in the vast crucible beneath our feet, where fierce fires are always raging, each change is directed by the hand of an Almighty chemist, with faultless wisdom, and in ways often past finding out.

It may be safely predicted that the Petroleum will have an immense effect upon the arts and industries of the world; already, in its infancy, it

has been applied to various purposes with great success. It furnishes a gas far more brilliant than that produced from coal; machinery oils of several kinds are obtained from it; wax, for making candles, and the bases of many brilliant dyes, are taken from it in the process of distillation. It is being daily experimented with more and more, and a thousand new uses are prophesied for it. Speculators and commission merchants, hoopers and coopers, railroad companies, and cart men, have had a flourishing time of it. Indeed, it has been said that the entire population of Pennsylvania is blissful, with the exception of one farmer who lost his feather crop, because his geese went swimming in Oil Creek, and came out tarred and feathered.

People who do not live in an oil district, and have no occasion either to buy or sell Petroleum, stand aside and take various views of the matter. One of our witty countrymen is afraid that the world will soon stop revolving for want of something to lubricate its axis. The Philosophers among us, say that we have ascended another round in the Ladder of Progress. Practical men fix their minds upon exports and tariffs, tares, and nett incomes. Some pious souls, as good as saints but not as cheerful, have terrified themselves by the idea that the immense influx of inflammable oil into the world, is to facilitate its burning; that it is in fact, merely a measure preparatory to the arrival of the great and notable day, when the elements shall melt with fervent heat, and the earth, and all the things that are therein shall be burned up. Even if their theory were correct there would be no terror in it, for when the appointed time comes, the world might as well burn quickly as to be long about it. If it is necessary for the satisfaction of certain minds to interpret the recent events scripturally, let them be taken in a more beneficent and hopeful signification. Every one whose duty or inclination has led them much among the poor, knows that the worst horror of winter to them after the bitter cold, is its terrible darkness. Work begins before light, and ends long after. The weary nights that stretch far down into the morning, and begin midway in the afternoon, leave only a narrow strip of sunlight between. Where the hungry mouths are scarcely filled, there is no money to expend for oil or candles, and many a working man and boy could tell them, that for months in the winter, "its always dark at home." Let our conscientious but melancholy friends remember, and help to fulfill the prophecies, that "to them that sit in darkness, light shall spring up," that "darkness shall be as the noonday," and that in the home of the humblest man, "at eventide it shall be light." Aside from all private interpretation of prophecy, there are simple and noble uses to be made of all the Master's gifts, if men have but the will to see them, and we hope that while Commerce claims new profits from Petroleum, and Science works out from it new results, Philanthropy will not forget to make it bear its share in the sweet services of charity.

THE ENLARGEMENT BY GOVERNMENT OF THE ERIE, OSWEGO, AND ILLINOIS CANALS—A MEASURE BOTH IMPOLITIC AND UNNECESSARY.

A TIME of war, requiring all the energies of a people, with its attendant excitements, is clearly not a favorable time for reflection or deliberate action. So far as it becomes necessary to act for the purpose of securing the nation's safety from the danger then threatening, the government must, of course, be prompt and energetic. If the transportation of troops or supplies require the building of a canal or railroad, such a canal or railroad should be built whatever the cost. Anything and everything necessary for the successful prosecution of the war should be done; but farther than that, it is clearly not advisable to go. Therefore all plans, schemes, or undertakings, well enough in times of peace, become objectionable when a nation is engaged in a contest that requires so great an expenditure of men and money as the present requires of us.

And yet, although every one must acknowledge this, it is strange how little these ideas influence us. Such, however, is human nature that when an individual or a nation of individuals begins to pay out large amounts of money and engage in large undertakings, former prudent habits and practices appear to be lost sight of, and millions even, look no larger than the dollars of the year previous. The child thinks the world can be bought with the first penny he holds, but let him have an abundance of pennies and he loses all idea of their value, and can find ways of spending more each succeeding day. Our nation now seems to us to be like an over-indulged child. A little more than a year ago we thought there was need for economy; that our expenditures were getting enormous—seventy millions a year! so all acquiesced in believing that no new scheme requiring more money should be entertained for a moment. War has come of most unheard-of proportions; our expenditures are no more counted by dollars, but by millions and hundreds of millions. Surely so much money will be our ruin unless we are very careful.

In confirmation of this last assertion, consider a moment some of the measures now before Congress, involving the government in large expenditure or loss. The Homestead Bill has already become a law—a project perhaps good enough if our treasury were full, or if we were at peace, and had time to reflect upon its bearings. Then, again, direct mail communication with China and other nations is being urged (for the purpose of fostering trade with them), and government aid is asked. Very likely these are worthy measures, but have we anything now to spend in those directions? Again, a canal around Niagara is planned—an excellent idea probably, if we had the money to pay for it or the time to consider it. A railroad from Washington to New York, and another to the Pacific*—very

* Since the above was written the Pacific Railroad Bill has passed. At any other time and under any other circumstances we should rejoice at this; but we cannot now look upon it otherwise than as a great misfortune. The bill passed we have not seen yet.

good speculations for the country, but has our government anything to invest just at present? So, too, the Illinois Canal project, and the Erie Enlargement bid fair to receive favorable action. And thus we might go on naming any and every plan involving the expenditure of money, which has ever been heretofore presented to Congress, and we will find that this year it is being favorably considered.* These prospective charges, too, upon the national treasury are, it must be remembered, in addition to the appropriation bills of nearly six hundred millions for the coming year, already passed, and the debt of (nobody seems to know how many) millions, already incurred. The same extravagant spirit also seems to possess our State Legislatures. We can here, however, only refer to the Military Bill passed by the New York Legislature—a measure involving the State in an outlay of five millions of dollars (a snug little sum as we formerly thought), for its organization, and one million a year for its maintenance.†

Surely, after considering these facts we must conclude that the management the past year, of large amounts of money has been too much for the heads of legislators. An interested outsider would think we had enough to do to meet the present expenses without increasing the burden; and that an absolute veto should be put upon all these outside matters. Very likely we shall be told that these are old fogy notions not fit for war times, or this wonderfully progressive age: yet we think this present debt-creating policy is so serious a matter, that we must raise our protest although the multitude may not applaud.

We have been led to make these remarks in view, particularly of the proposition now made to enlarge our canals, so as to pass gun-boats through them, to which plan our excellent President (heretofore a prudent man) has lent his influence.‡ There is something so plausible and pleasing in the idea of filling the lakes with our ocean iron-sides and filling the ocean with our grain-loaded boats direct from the lakes, and surpassing all other nations in power and patriotism, that we forget there are several steps and much time between the thought and its accomplishment. To our mind the fact that we have, at present, no time and no money to spare upon such a project, is sufficient.

But we are told these enlarged canals are necessary as a military measure; the country needs them as a means of defence; not of course, in carrying on this war (oh! no), but to prevent or prosecute future wars with—England! We really wonder whether this idea has any weight with any of those who advocate these measures. Our skepticism is of so rank a nature that it is impossible for us to believe it has. For if there ever was a proposition that is clearly absurd, certainly the one now made to enlarge

* We see the papers announce that an entirely *new* measure is soon to be introduced, and is likely to pass—the giving of pecuniary aid to Mexico in her present struggle! Would it not be well to send her a hogshead or two of paper money? It might be spared we think, without harm.

† This statement we first met with in the *Albany Atlas and Argus*, and have since seen it contradicted, and the law explained by its friends. But we have examined the law with the explanations offered, and are forced to the conclusion that (in case the number of the militia reaches the highest point contemplated by the bill) the above estimate cannot be out the way.

‡ See the message of the President on submitting to Congress the memorial of Mr. RUGGLES.

these canals as a *military* necessity, is entitled preëminently to that position. According to our opinion, the fact that this plan is not proposed as a measure necessary for the present war, is, as we have said before, sufficient to entitle it to defeat, until our exhausted treasury is supplied a little. But aside from, and in addition to this, we think it is very plain that as a *military* measure it is not worth considering a moment.

The report of the Hon. F. P. BLAIR, jr., is the only form in which this question is presented officially for the action of Congress. His proposition is to enlarge the Erie and Oswego Canal locks to twenty-six feet in width, and two hundred feet in length, and the Illinois and Michigan Canal so that it will pass the shallow side-wheel steamers of Western rivers. In order that these improvements may be effective as a means of defence, of course it is necessary that the canals when finished, should with their enlarged capacity be able to furnish the lakes with as effective war vessels as can be placed there by England through her Canada canals. And yet it is a fact, that the St. Lawrence ship canals already have locks forty-five feet wide, and two hundred feet long, by which sea-going vessels can be passed to Lake Ontario. Then again, the Welland Canal, from Lake Ontario to Lake Erie, now has locks twenty-six feet wide, and one hundred and fifty feet in length, and long before we could finish our project, they could be made twice that size. With, therefore, Canadian locks forty-five feet wide, and hence capable of passing vessels of about that width, how can we expect to put war vessels on the Lakes able to compete with them through locks twenty-six feet wide. The proposition is a plain one, and will we think, require close figuring, and civilian generalship to work out a satisfactory answer. Is anything more needed to show that as a *military* measure, the project must be a failure?

But again. It will be remembered that the object of this enlargement is for defence in a war with England—the greatest naval power in the world. With this idea before us, the question naturally suggests itself, where are we, in case of war, to get the vessels to take through the canals to the Lakes. All we have on the sea-board, we should clearly need to keep there. We certainly could not spare them for the defence of the Lakes. It is a very pleasant idea to say that we shall always have ships enough for both services: and so we might perhaps, if we intended to change the entire policy of the government, and increase our navy a hundred fold. But in a time of peace, the situation of our country is such that we do not need so large a navy as England needs to protect her sea-girt shores, and she never can allow us, even if we had the desire, to equal her in that respect. In this connection it must of course be borne in mind that these enlarged canals would be of use only to pass the vessels on hand at the time the war began. If we had none to spare at that time, then of course they would be of no advantage, since all we should build for the Lakes, after the war had begun, could be built on or near them, better than in our present navy yards—the necessary material being cheaper there than here. Hence, as we said before, unless we are hereafter to change our entire policy, and keep in time of peace a navy rivaling England's, these canals would be of no use in a military point of view.

Then again, why would not the true place to defend the Lakes against English vessels, be at the mouth of the St. Lawrence. We have never been blessed with a military education, and yet it looks to us as if, were you to stop up that hole, there would be no rats to trouble us on the Lakes.

We can send vessels of any size there, and certainly must be able to cope with England at that point, if at all, much better than on an inland Lake, our entrance to which is to be twenty feet narrower than hers.

But there is another very cheap and excellent way of defending ourselves on those Lakes, whenever we may consider it necessary to do so. To be sure the plan does not involve any fat jobs, but to our mind that is no objection. As to the enlargement of these canals, the Congressional committee having the matter in charge tell us, we believe, that seven millions of dollars will cover the expense. Judging from the estimates made for the Erie enlargement, and the amount actually paid out in its accomplishment, we may multiply this estimate by five at least, if we would have the probable cost, and then, we must remember, we would have an entrance to the Lakes twenty feet narrower than the Canadian entrance. Instead, therefore, of carrying out this never-ending, exhausting, and as a military measure, useless project, let us take a portion of one year's interest on this immense sum, and defend our Lakes by establishing an armory and navy yard in the West, and let a certain number of these iron-clad vessels be there framed, put under cover, and kept for use when needed, with all the different parts completed ready to be put together on the shortest notice. This we think is a very effective, simple, and inexpensive way of accomplishing a desired end. Even if the canal enlargement were made, we should have to keep on hand a surplus of small vessels, or else in time of war we should not have any to send to the Lakes: for we would need our entire stock to defend the sea-board, as we have already stated. Hence, if we will select a point in the West where iron, timber and coal are cheap, and make that our depot, we will be at less expense in the matter of vessels, and no expense whatever for enlarging canals.*

Thus we have very briefly endeavored to show the utter foolishness of this proposed plan of defending our Lakes. Whether or no these canal enlargements would be for the benefit of trade, is a question we do not care to discuss. It in no way effects the issue. Congress has no power to appropriate money for such purposes. Our country too is, as we have stated before, engaged in a very expensive war. The debt is increasing daily by millions. Unless we economize in every possible way, our energies and resources will be crippled and paralyzed by taxation to such an extent as to make little difference whether we have large, or small, or no canals. Were this measure a present military necessity, of course we should not hesitate a moment to give it our unqualified approval. Our government should be upheld, whatever the cost, or whatever the burden assumed. But to add to our present expenditure, except in case of absolute necessity, seems to us utter madness.

* Peoria has been suggested as an excellent place for a Western armory. It might be well to have a navy yard there too, as it combines many advantages. This would involve the enlarging of the Illinois canal—but as that is only one hundred miles in length, the expense would be comparatively trifling. We consider it a great advantage to have the navy yard off from the Lakes, since its possession could be retained even if we were to lose control of the Lakes—a very important consideration in our opinion. We do not propose this as a measure which should be carried out immediately, if at all. We only suggest it as a plan far better and less expensive than the one before Congress. There is no need for it at present, and we have no money to spare at present. *Retrenchment should be our motto now.*

COMMERCIAL CHRONICLE AND REVIEW.

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COURSE OF BUSINESS—IMPORTS—DUTIES—EXPORTS—EXCESS OF IMPORTS—PAYMENTS IN COIN—SPECIE MOVEMENT—EXCHANGE—RATES OF—PAPER MONEY—PAYMENTS FROM TREASURY—PRICE OF STOCKS AND GOLD—TABLE OF PRICES—EXCHANGE OF 7.30's—GOLD NOTES—SUPPLY OF PAPER—RATES OF MONEY—NEW-YORK STOCK—HIGH PREMIUM—FINANCIAL SITUATION—RECOVERY IN CIRCUMSTANCES—LOAN OF PAPER—ERRORS OF GOVERNMENT—NO SUBSCRIPTION TO LOAN—SECRETARY'S REPORT—STATE OF FUNDED DEBT—ALL PAPER MONEY—CONVERSION FAILED—STOCKS FROM EUROPE—ACTUAL FALL IN GOVERNMENT STOCKS—AGGREGATE EXPENSES—CALL FOR MORE PAPER MONEY—GOVERNMENT BANK—DEPENDENCE ON PAPER—EFFECT OF PAPER ISSUES—IT DESTROYS REVENUE—IT INCREASES EXPENSES—FORCED LOANS—PRODUCTION THE BASIS OF TAXATION—WAR DESTROYS PRODUCTION—DEPENDENCE UPON CUSTOMS—BASIS OF CUSTOMS REVENUE—WANT OF CONFIDENCE—DISAPPEARANCE OF GOLD.

THE course of business has, during the month, exhibited an improving tendency. The long continued abundance of money and the reduced stocks of goods have naturally brought about a greater demand for the most necessary descriptions. It is true that the anticipation of a more liberal demand for goods from the South, consequent upon the opening of ports and the progress of the armies, has not been justified to the full extent; but the indispensable wants of great numbers of people gradually make themselves felt, despite the utmost economy. There has, therefore, been some revival in manufacturing industry, and an increase in the importation of foreign goods, as seen in the following table:

### IMPORTS, PORT OF NEW YORK.

|                   | Specie.    | Free goods.  | Entered for— |              | Total.       |
|-------------------|------------|--------------|--------------|--------------|--------------|
|                   |            |              | Consumption. | Warehouse.   |              |
| January.....      | \$163,658  | \$2,552,050  | \$6,663,396  | \$3,141,725  | \$12,620,829 |
| February.....     | 62,007     | 3,381,473    | 7,058,174    | 3,370,486    | 13,872,140   |
| March.....        | 89,327     | 3,476,004    | 10,312,689   | 4,841,846    | 18,719,866   |
| April.....        | 26,152     | 2,232,315    | 7,141,197    | 3,853,218    | 13,252,882   |
| May.....          | 110,383    | 1,146,093    | 8,091,120    | 4,600,920    | 12,948,516   |
| Total, 4 months.. | \$451,532  | \$13,047,935 | \$39,366,576 | \$19,808,195 | \$72,914,238 |
| “ 1861.....       | 20,522,515 | 15,095,389   | 30,165,694   | 25,426,536   | 91,210,143   |

Exclusive of specie, the entries of goods are but little more for the whole period of five months than they were last year. The quantities of goods put upon the market this year are nearly nine millions more than last year, or, with the duties, they have been as follows:

|           | Goods on market. | Duties.        | Per cent. |
|-----------|------------------|----------------|-----------|
| 1861..... | \$62,670,346     | \$9,700,272 54 | 15.4      |
| 1862..... | 71,452,613       | 20,398,460 89  | 28.5      |

These duties show the change from the old to the new tariff, and the charge is nearly doubled on goods imported. The exports from the port of New York have been as follows for the same period:

## EXPORTS, PORT OF NEW YORK.

|                   | Specie.      | Foreign.  |             | Domestic.    | Total.       |
|-------------------|--------------|-----------|-------------|--------------|--------------|
|                   |              | Free.     | Dutiable.   |              |              |
| January.....      | \$2,658,374  | \$27,193  | \$149,493   | \$12,053,477 | \$14,948,437 |
| February.....     | 3,776,919    | 49,066    | 203,757     | 10,078,101   | 14,112,843   |
| March.....        | 2,471,233    | 65,388    | 458,917     | 8,985,176    | 11,980,714   |
| April.....        | 4,087,675    | 56,350    | 607,678     | 8,002,094    | 12,703,797   |
| May.....          | 5,164,536    | 76,971    | 752,797     | 9,837,693    | 15,342,097   |
| Total, 4 months.. | \$18,108,737 | \$274,968 | \$2,197,642 | \$48,966,541 | \$59,517,888 |
| " 1861.....       | 3,005,196    | 1,036,847 | 2,534,586   | 51,207,009   | 57,783,638   |

The marked feature is the large increase in the export of specie, exclusive of which the exports correspond with the imports as follows:

|                        | 1861.        | 1862.        |
|------------------------|--------------|--------------|
| Imports.....           | \$70,686,628 | \$72,462,706 |
| Exports.....           | 54,778,442   | 51,409,161   |
| Excess of imports..... | \$15,909,186 | \$21,054,555 |

The decline in the prices of grain has involved the export of much larger quantities to produce the same amount of exchange, which has been scarce, and gold has been freely shipped to make up the deficit, which has been further increased by the tendency of stocks to come home from Europe for sale, in consequence of the inflation of prices caused by the paper issues here. The financial course of the government has not been such as to inspire confidence, and a very large margin existed between the prices of stocks in London and in New York. The specie movement was, therefore, progressive, as indicated in the following table:

## SPECIE AND PRICE OF GOLD.

|            | 1861.       |           | 1862.      |            | Gold in bank. | Price of gold. |
|------------|-------------|-----------|------------|------------|---------------|----------------|
|            | Received.   | Exported. | Received.  | Exported.  |               |                |
| Jan. 4...  | .....       | .....     | .....      | \$442,147  | \$23,983,878  | 2 a 4 prem.    |
| " 11...    | \$1,445,385 | .....     | \$885,923  | 1,035,025  | 25,373,070    | 4 a 5 "        |
| " 18...    | 1,446,219   | .....     | .....      | 547,703    | 26,120,859    | 4 a 4½ "       |
| " 25...    | 1,246,029   | \$22,855  | 627,767    | 322,918    | 26,698,728    | 2 a 3½ "       |
| Feb. 1...  | 1,514,154   | 289,669   | .....      | 310,484    | 27,479,533    | 3½ a 3½ "      |
| " 9...     | 1,052,313   | 115,698   | 854,000    | 976,235    | 28,196,666    | 3½ a 3½ "      |
| " 15...    | 1,056,426   | 117,101   | 614,146    | 1,156,154  | 28,114,148    | 4 a 4½ "       |
| " 22...    | .....       | 187,253   | 759,247    | 734,512    | 28,875,992    | 3 a 3½ "       |
| March 1..  | 855,755     | 176,161   | 741,109    | 510,774    | 29,826,959    | 2 a 2½ "       |
| " 8...     | .....       | .....     | 679,075    | 585,236    | 30,436,644    | 1½ a 2½ "      |
| " 15...    | 815,524     | 123,316   | 677,058    | 477,335    | 30,773,050    | 2 a 1½ "       |
| " 22...    | .....       | 91,161    | .....      | 540,968    | 32,023,390    | 1½ a 1½ "      |
| " 29...    | 699,597     | 6,088     | 490,368    | 779,564    | 32,841,862    | 1½ a 1½ "      |
| April 5... | 996,445     | 628,708   | 581,292    | 673,826    | 33,764,382    | 1½ a 1 "       |
| " 12...    | 1,110,231   | 323,906   | .....      | 1,505,728  | 34,594,668    | 1½ a 2½ "      |
| " 19...    | .....       | 823,127   | 617,279    | 693,432    | 34,671,528    | 2 a 1½ "       |
| " 26...    | 844,577     | 1,000     | 635,546    | 1,151,300  | 35,297,944    | 1½ a 1½ "      |
| May 2...   | .....       | 800       | 410,804    | 712,275    | 35,175,828    | 2½ a 3½ "      |
| " 9...     | 868,600     | 27,695    | 484,019    | 1,574,166  | 32,239,868    | 3½ a 3½ "      |
| " 17...    | 755,102     | .....     | 604,682    | 1,093,031  | 30,280,697    | 3 a 3½ "       |
| " 24...    | 1,913,355   | .....     | 604,682    | 938,032    | 30,672,760    | 3½ a 3½ "      |
| " 31...    | 2,282,137   | 500       | 224,911    | 881,452    | 31,397,284    | 3½ a 3½ "      |
| June 7...  | 1,618,876   | 650       | 553,035    | 1,647,299  | 31,284,382    | 3½ a 4½ "      |
| " 14...    | 380,000     | 18,976    | 352,391    | 1,990,327  | 31,162,048    | 4½ a 6½ "      |
| Total..    | 20,894,425  | 2,193,728 | 11,421,807 | 21,797,868 | .....         | .....          |

The price of gold, in paper, rose rapidly under the shipping demand, which became urgent about the middle of April, when the government issue of paper commenced. The rates of exchange followed the rise in gold, and was as follows :

RATES OF EXCHANGE.

|         | London.     | Paris.        | Amsterdam. | Frankfort. | Hamburg.  | Berlin.   |
|---------|-------------|---------------|------------|------------|-----------|-----------|
| Dec. 1, | 109 a 109½  | 5.25 a 5.15   | 40½ a 40¾  | 41 a 41½   | 35½ a 36  | 73½ a 74  |
| " 15,   | 110½ a 110¾ | 5.15 a 5.10   | 41½ a 41¾  | 41¾ a 42   | 36½ a 37  | 74 a 74½  |
| Jan. 1, | 110½ a 113  | 5.12½ a 5.05  | 42 a 42½   | 42½ a 43   | 37½ a 38  | 74½ a 75  |
| " 15,   | 113½ a 114  | 5.05 a 4.90   | 42½ a 43½  | 43½ a 43¾  | 37½ a 38½ | 75½ a 76½ |
| Feb. 1, | 113 a 113½  | 5.10 a 4.95   | 42½ a 43½  | 43½ a 43¾  | 37 a 38½  | 75½ a 76  |
| " 15,   | 115 a 115½  | 4.97½ a 4.90  | 42½ a 43½  | 43½ a 44   | 37½ a 38½ | 76½ a 77  |
| Mar. 1, | 112 a 113   | 5.05 a 5.00   | 42½ a 43   | 42½ a 43   | 37 a 37½  | 75½ a 75¾ |
| " 15,   | 112½ a 112½ | 5.07½ a 5.03¾ | 42½ a 43   | 42½ a 43¾  | 36½ a 37¾ | 74½ a 75  |
| " 22,   | 111 a 112½  | 5.03¾ a 5.00¾ | 42 a 42½   | 42½ a 42¾  | 36½ a 37½ | 74 a 74½  |
| " 29,   | 111 a 112   | 5.10 a 5.05   | 42 a 42½   | 42½ a 42½  | 36½ a 37½ | 74 a 74½  |
| Apr. 5, | 111½ a 112½ | 5.07½ a 5.02½ | 42½ a 42½  | 42½ a 42½  | 36½ a 37½ | 74½ a 75  |
| " 12,   | 111½ a 112½ | 5.10 a 5.03½  | 42 a 42½   | 42½ a 42½  | 36½ a 37½ | 74 a 74½  |
| " 19,   | 111½ a 112½ | 5.10 a 5.03¾  | 41¾ a 42½  | 42½ a 42½  | 36½ a 37½ | 74 a 74½  |
| " 26,   | 111½ a 112½ | 5.02½ a 5.07½ | 42½ a 42½  | 42½ a 42½  | 36½ a 37½ | 74½ a 74½ |
| May 2,  | 112½ a 113½ | 4.97½ a 5.02½ | 42½ a 42¾  | 42½ a 47½  | 37 a 37½  | 74½ a 74½ |
| " 10,   | 113 a 114   | 4.91½ a 5.02½ | 42½ a 43   | 42½ a 43½  | 37½ a 37½ | 75 a 75½  |
| " 17,   | 113 a 114   | 4.96½ a 5.00  | 42½ a 43   | 42½ a 43½  | 37½ a 38  | 75 a 75½  |
| " 24,   | 114½ a 115  | 4.92½ a 5.00  | 42½ a 43   | 43 a 43½   | 37½ a 38  | 75½ a 75½ |
| " 31,   | 114 a 114¾  | 4.95½ a 4.91½ | 42½ a 43½  | 43½ a 43½  | 37½ a 38½ | 75½ a 76  |
| June 7, | 114 a 115   | 4.95 a 4.91   | 43 a 43½   | 43½ a 43½  | 37½ a 38½ | 75½ a 76  |
| " 14,   | 117½ a 118  | 4.75 a 4.82   | 43½ a 44½  | 44½ a 45   | 39 a 39½  | 76½ a 77½ |
| " 26,   | 120½ a 121  | 4.70 a 4.65   | 44½ a 45   | 45 a 45½   | 40 a 40½  | 78 a 78½  |

The government paper money being ready for delivery in the fore part of April, it was paid out freely from the Assistant Treasury in New York, and its effects are manifest in the following table, showing the weekly payments, the deposits, and specie in the banks, the export and premium on specie, the price of United States 6 per cent stock, the premium on the old paper money, or that which is receivable for customs :

|               | Payments.  | Bank deposits. | Specie.    | Specie exports. | Prem. on stocks. | Price specie. | Prem. on old notes. |
|---------------|------------|----------------|------------|-----------------|------------------|---------------|---------------------|
| April 12..... | 4,438,831  | 93,759,063     | 34,594,668 | 1,505,728       | 1½               | 93½           | par.                |
| " 19.....     | 12,531,675 | 95,179,340     | 34,671,528 | 693,432         | 1½               | 94½           | "                   |
| " 26.....     | 24,723,223 | 101,897,435    | 35,297,944 | 1,151,300       | 1½               | 96            | "                   |
| May 3.....    | 22,747,942 | 109,634,535    | 35,175,828 | 712,275         | 2½               | 99            | "                   |
| " 10.....     | 17,187,322 | 115,559,246    | 32,239,868 | 1,674,166       | 3½               | 102           | ½                   |
| " 17.....     | 9,835,727  | 120,003,929    | 30,280,697 | 1,093,031       | 8½               | 105           | ½                   |
| " 24.....     | 10,445,000 | 122,602,864    | 30,672,760 | 938,032         | 3½               | 103½          | ½                   |
| " 31.....     | 6,888,052  | 125,434,751    | 34,397,284 | 881,452         | 3½               | 104½          | ½                   |
| June 7.....   | 6,570,830  | 125,566,961    | 31,284,882 | 1,647,299       | 4½               | 106½          | 1                   |
| " 14.....     | 9,832,791  | 125,643,375    | 31,162,084 | 2,040,327       | 6½               | 107½          | 3                   |
| " 23.....     | 8,486,213  | 126,654,422    | 31,047,945 | 3,150,988       | 7                | 106           | 3                   |

As the paper money flowed out of the Treasury, it swelled the deposits in the banks, and sought investments as a matter of necessity in government paper, deposits, 5 per cent certificates, one year 6 per cent certificates, three year 7.30 bonds, and, to a small extent, in twenty years 6 per cent bonds. The price of which rose 14 per cent in paper, while gold rose 5 per cent. The different descriptions of government paper were affected as follows :

## PRICES UNITED STATES PAPER.

|                  | —6's, 1861.— |       | 5's, 1874. | 7 3-10,<br>3 years. | 6 p. c. certif.<br>1 year. | Gold. | August<br>demand<br>notes. |
|------------------|--------------|-------|------------|---------------------|----------------------------|-------|----------------------------|
|                  | Reg.         | Coup. |            |                     |                            |       |                            |
| February 5,..... | 88           | 89    | 78½        | ..                  | ..                         | ..    | ..                         |
| " 19,.....       | 90           | 90    | 79         | 99                  | ..                         | ..    | ..                         |
| March 1,.....    | 93½          | 92½   | 85½        | 99½                 | ..                         | 2½    | ..                         |
| " 13,.....       | 93           | 93    | 86         | 100                 | ..                         | ..    | ..                         |
| " 19,.....       | 94           | 94    | 88         | 100                 | ..                         | 1½    | ..                         |
| " 26,.....       | 94½          | 94½   | 87¾        | 100                 | 97                         | 1½    | ..                         |
| April 1,.....    | 93           | 93    | 87         | 99¾                 | 96¾                        | 2½    | ..                         |
| " 7,.....        | 93½          | 93½   | 87         | 100                 | 97                         | 1½    | ..                         |
| " 30,.....       | 97½          | 98½   | 89¾        | 102½                | 99½                        | 2½    | par.                       |
| May 10,.....     | 103½         | 103   | 94         | 104                 | 99½                        | 2½    | ½                          |
| " 17,.....       | 105          | 105   | 96         | 105                 | 100½                       | 3     | ¾                          |
| " 23,.....       | 104½         | 104½  | 96         | 105                 | 100½                       | 3½    | ¾                          |
| " 31,.....       | 104½         | 104½  | 96         | 105                 | 100                        | 3½    | ¾                          |
| June 7,.....     | 103          | 106   | 96         | 106½                | 100½                       | 4½    | 1                          |
| " 14,.....       | 103½         | 107½  | 97¾        | 106½                | 100½                       | 6¾    | 3                          |
| " 26,.....       | 102½         | 106½  | 96½        | 105¾                | 99¾                        | 9     | 4½                         |

The June quotation for the registered stock are ex-interest. The paper flood floated up these securities to par nearly, for gold, but in doing so attracted stocks from Europe. The interest on the stocks is payable in gold, and consequently the Treasury must buy gold, since the \$60,000,000 of old paper money out is held to pay duties, the only revenue of the government. The Secretary, therefore, changed the 7.30 bonds for gold at par with the banks, to the extent of \$6,000,000, which served to pay the July and August interest, most of which is due to the banks. The Secretary also exchanged \$2,500,000 7.30 bonds for old paper money, at 3 per cent premium, when the market price was 6½ per cent premium for the bonds, and 1 per cent premium for the notes, an operation which left a large profit to the banks. It was justified on the plea, 1st, that the Secretary wanted money, and 2d, that it was requisite to get the old notes out of the way as fast as possible, in order to get gold for customs; but as there are \$56,000,000 of these notes outstanding, the getting in \$3,000,000 would not help the Treasury. Again, if the notes were got into use as money, they would be paid out again, an operation which the law forbids. Again, if money was the object, the 3-year bonds would have brought 6 per cent in new notes, instead of 3 per cent in old notes, which are no more money than new notes. The operation was private and was inexplicable.

The flood of money from the Treasury, which so filled the bank vaults, inflated stock prices, and swelled the Treasury deposits, also caused a fall in rates, which were as follows:

|                | —On call.— |        | —Endorsed.— |            | Other good. | Not well<br>known. |
|----------------|------------|--------|-------------|------------|-------------|--------------------|
|                | Stocks.    | Other. | 60 days.    | 4 a 6 mos. |             |                    |
| October 1,.... | 6 a 7      | 6 a 7  | 6½ a 7      | 8 a 12     | 12 a 15     | 24 a 36            |
| Feb. 1,....    | 6 a 7      | 7 a.   | 5½ a 7      | 6 a 7      | 8 a 12      | .. a..             |
| April 5,....   | 5 a 6      | 7 a.   | 6 a 7       | 8 a 9      | 7 a..       | .. u..             |
| " 26,....      | 5 a 6      | 7 a.   | 6 a 7       | 8 a 9      | 7 a..       | .. a..             |
| May 2,....     | 5 a.       | 7 a.   | 6 a 7       | 8 a 9      | 7 a..       | .. a..             |
| " 10,....      | 4 a 5      | 7 a.   | 5 a 6       | 7 a 8      | 7 a..       | .. a..             |
| " 17,....      | 4 a 5      | 7 a.   | 5 a 6       | 7 a 8      | .. a..      | .. a..             |
| " 24,....      | 4 a 5      | 6 a.   | 4 a 5       | 6 a 7      | 6 a 7       | .. a..             |
| " 31,....      | 4 a 5      | 6 a.   | 4 a 5       | 6 a 7      | 6 a 7       | .. a..             |
| June 7,....    | 4 a 5      | 6 a.   | 4 a 5       | 6 a 7      | 6 a 7       | .. a..             |
| " 14,....      | 3 a 5      | 6 a.   | 4 a 5       | 6 a 7      | 6 a 7       | .. a..             |

The demand for money was very small, but little new business paper is made, the offerings for discount were very limited, and money was at 3 per cent on call. On the 1st of July many States paid their interest in gold. These payments, with those of the Federal government, were estimated at \$7,000,000, a considerable portion of the gold remaining with the banks that held the stocks. The State of New York negotiated a loan for \$800,000 6 per cent, redeemable, 1878, payable in gold. The amount of money offered was \$5,400,000, and was awarded at a premium of 110.79½, equal to 117 currency, or more than 10 per cent higher than federal stocks, which are not subject to taxation. When Federal stocks are so low, the transaction is a significant one.

There has been no material change during the month in financial affairs, although there has been considerable progress in the development of those effects of paper money which we pointed out in our last, as apparent in the market. The symptoms of paper inflation have manifested themselves mostly in the rise of stocks, gold, and exchange. Yet these unmistakable evidences of approaching danger, have been, by a portion of the community, regarded as signs of prosperity, and by others not bold enough to deny their evil import, as the results of speculation. It is remarkable how exactly arguments and assertions reproduce themselves with the recurrence of the same circumstances. When the irredeemable paper money of the revolutionary French Government began to depreciate, the apparent rise in prices was charged upon speculators, forestallers, monopolisers, and the government resorted to laws making it criminal to charge a premium for gold; *maximum* laws fixing the prices for all necessaries of life; laws to punish contumacy in refusing to sell at legal prices, and manifold devices, the only result of which was to crush out production and accelerate ruin. After a lapse of seventy years, the same effects from the same causes are again charged upon speculators. The results cannot, however, be changed. In embracing the paper money policy, in order to avoid direct taxation, the government has invited national ruin to shield politicians from present responsibility. This process must be continued, for the reason that the accumulated capital of the country, which seeks permanent investment, is rapidly decreasing, and not a dollar has been obtained by the government from that source in the last six months. We may look back at events. The Secretary, in his annual report, states that the debt of the government had been, July 1, 1861, \$90,867,828, and December 1 it was \$267,540,035, an increase of \$176,672,107. Of this amount there had been subscribed by the banks \$50,000,000 in 7.30 notes, and \$50,000,000 in 6 per cent 20 years' stocks, making \$100,000,000 held by the banks; also, \$50,000,000 had been taken by the public in 7.30 notes, and \$24,550,325 had been put out as currency. May 29, the Secretary made another report, and the funded debt had risen to \$491,448,984, an increase of \$233,008,949. Of this increase none whatever had been subscribed. It was composed as follows:

|                              |              |                            |               |
|------------------------------|--------------|----------------------------|---------------|
| 7.30 notes paid out.....     | \$20,523,450 | 5.20 bonds funded notes..  | 2,699,400     |
| Paper money paid out...      | 121,326,675  |                            |               |
| Deposits at 10 days notice   | 50,778,566   |                            | \$243,100,641 |
| 1 year certificates paid out | 47,199,000   | Less treas'y notes red'med | 19,191,692    |
| Oregon war debt.....         | 570,550      |                            |               |
|                              |              | Net increase of debt.....  | \$223,908,949 |



The 7.30 three year bonds were paid out to creditors, and exchanged with banks for gold with which to pay interest on the bonds they held. The operation was the same as compounding the interest at 7.30 per cent. The paying out of the notes caused the price to fall to 96. The issue then stopped, and one year certificates paid out until the price fell to 95. The issue was then stopped, and the paper money paid out, which filled the banks and returned upon the Treasury in the shape of deposits at 5 per cent. This resource having reached its limit, the proposition was made to fund the demanded notes in the 5-20 6 per cent stocks. These are called 5-20's, because they are payable at the pleasure of the government after 5 and at 20 years. This resulted in \$2,699,400 out of \$500,000,000 authorized to be funded. From these circumstances, it is apparent that the only resource of the government in the last six months, has been paper money. There was no desire to invest in the stocks, even at 7 per cent, when money was only worth 5 per cent in the open market. Under the influence of the paper, prices apparently rose, and the rise drew considerable amounts from Europe. The rise was, however, only apparent, since on the day of the Secretary's report, United States 7.30's were at 5 per cent premium, and gold  $3\frac{3}{4}$  per cent premium, which was equal to a premium of  $1\frac{1}{2}$  per cent for the stocks in gold. On the 26th June, the 7.30 were at  $5\frac{3}{4}$  per cent premium, and gold 9 per cent. Thus the bonds had, for gold, fallen to  $3\frac{1}{2}$  discount, although they had risen  $\frac{3}{4}$  for paper.

The receipts of the government, in the six months, for customs and other sources, were \$30,000,000, which, added to the increase of debt, makes \$254,000,000 paid in the six months for expenses, besides large amounts in arrears, estimated at \$100,000,000. Under these circumstances, the Secretary came forward and asked for \$150,000,000 more paper money, and to remove the limit on the amount of deposits that might be received at interest, and for the right of purchasing any United States stocks. In other words, to inaugurate a bank of discount, deposits, and circulation to the extent of \$300,000,000. These resources were supposed equal to the \$250,000,000 that would be required until January 1, 1863. The fact of the demand shows that the Secretary does not delude himself with the idea, that much stock can be sold in the market, at a time when capital has ceased to accumulate in the country, and is becoming constantly deteriorated. There is another delusion which has yet to be dispelled. It is that which seems to be common to many members of Congress, viz.: That paper money may be a permanent resource. Up to a certain point, the channels of business will absorb circulation, and that point depends upon the quantity of crops and goods produced, and the activity of trade. The moment that point is passed prices rise; if the circulation is gold, it flows off to other countries, until the currency is depleted. If the currency is paper, prices continue to rise exactly in proportion to the quantity of paper put out, and it soon ceases to be a revenue. To illustrate, if the crop of wheat is 100,000,000 bushels, or 20,000,000 barrels of flour, the price may be \$5 per barrel; when the currency amounts to \$100,000,000, if the government adds \$100,000,000 to the currency, the flour may be \$10, and the farmer pays his tax with half the quantity of produce. In other words, the government revenue really falls one-half, and everything it buys doubles in price. The expenses of the war increase in the proportion of the paper. If in the first

year of war at specie prices, the expense is \$620,000,000, the second year in paper will cost \$1,200,000,000. Thus every dollar of paper the government puts out, takes so much from its revenue, until it ceases to have any. The usual resort in such cases is forced loans, payable in the depreciated paper, in order to get it out of the market. The whole then becomes obsolete. The real and only capital of the country depends upon production. From this alone arises any surplus which can be loaned to the government. The productions of the United States have hitherto been very large, but it is not so now, for the reason that war absorbs all productive powers. We are now producing battles and not wealth, but we are rapidly spending that which was before produced. In illustration of this diminished production, we may take from official sources, the leading agricultural productions of the Southern country, which result altogether from black labor. The gross number of blacks was, in round numbers, 4,000,000, all of these are not engaged in field labor, but if the products are averaged upon the whole, the ratio is as follows for 1860 :

|                                          |               |
|------------------------------------------|---------------|
| Sugar and molasses crop.....             | \$23,000,000  |
| Tobacco .....                            | 40,000,000    |
| Rice and lumber.....                     | 5,100,000     |
| Naval stores and spirits turpentine..... | 4,500,000     |
| Cotton.....                              | 225,000,000   |
| Total six articles.....                  | \$297,600,000 |

Of these quantities, about \$230,000,000 were exported out of the country. The whole is an average of \$70 per head for each black, in addition to the other productions. The war has stopped that production, and regarding the Union as a whole, which is responsible for her war debt, it is so much wealth to be deducted from the means of payment; the resumption of these productions, after the war, depends upon the *Status* of the producers. If the war lasts three years, the loss is \$1,000,000,000, supposing the production to be resumed afterwards. It is true that the blacks are employed producing food, but that is consumed by themselves and the troops at the North. The returns of the Treasury Department, show the annual production of agriculture and manufactures at the North to be \$1,500,000,000, and the number of able bodied workers is 5,000,000, which would give \$300 per head each, or \$60 per head for each person, but there are 750,000 employed in the war, consequently, the production is diminished \$225,000,000 per annum. Thus admitting that the whites in the Southern armies produce mostly nothing, the war stops the production of wealth equal to \$600,000,000 per annum, to this add the actual expense of the war, \$700,000,000 for the first year, and the yearly cost is \$1,300,000,000. The exhaustion of capital takes place step by step with the accumulation of debt. There is more to pay, and less to pay it with. We may now look at the actual revenues of the government for the past 40 years, that is, from 1821 to 1861, inclusive. They may be said to have been derived altogether from customs, and are given in the last annual report of the Secretary of the Treasury, at \$1,231,456,369. This is an average of about \$30,000,000 per annum for the whole period, and it has been derived from duties upon imported goods. It is obvious that goods imported, are only the proceeds of the sales of American produce abroad, consequently, the amount of imports depends upon what we have to sell. The produce exported, and the value

of imports, exclusive of specie, have been as follows, according to the tables contained in the last annual report of the Secretary of the Treasury :

|                                        |                 |                 |
|----------------------------------------|-----------------|-----------------|
| Value of net imports for 40 years..... |                 | \$5,666,442,155 |
| Exports—Value of cotton.....           | \$2,608,885,574 |                 |
| Value of tobacco.....                  | 368,965,777     |                 |
| Value of rice.....                     | 89,236,689      |                 |
| Value of lumber, naval stores, &c....  | 250,000,000     |                 |
| Total of black labor.....              | \$3,817,088,030 |                 |
| Breadstuffs and provisions.....        | \$1,101,817,970 |                 |
| All other articles.....                | 642,023,667     |                 |
| Total exports goods.....               |                 | 5,060,929,667   |
| Excess of imports.....                 |                 | 605,512,488     |
| Specie imported.....                   | 886,501,487     |                 |
| Specie exported.....                   | 718,437,688     |                 |
| Excess of exports.....                 |                 | \$31,936,201    |
| Net excess of imports.....             |                 | \$278,576,287   |

This excess is accounted for by earnings of American vessels abroad, stocks sold abroad, &c. The general result is, therefore, that more than 60 per cent of the goods imported in the last 40 years, were paid for by that black labor which is jeopardized by the present war, and, as a consequence, more than 60 per cent of the whole government revenue has been derived from the same source. That revenue can be supplied only by taxes. In other words, had that description of labor not existed in the past forty years, the Northern labor would have had to pay over \$3,000,000,000 in taxes to sustain the same revenue—and, consequently, if events destroy that labor, for the future, the whole weight of the great expenses, and the existing debt, must be paid by taxation at the North. From these facts it is apparent, that a great deal depends upon the financial management of the war. If a system of unbounded extravagance, with that which now exists in paper money, is to be pursued, because the members of the present Congress are so wanting in every statesmanlike virtue, that they prefer national ruin to the risk of losing their own places, speedy bankruptcy must result. On the other hand, an adhesion to a specie basis, with adequate taxation to meet the necessary expenses, may keep the debt within a manageable amount. The present financial system already totters to its base. It will be remembered that the disappointment caused by the annual report of the Secretary of the Treasury, in December last, produced a panic which drained the banks of \$20,000,000 of gold, and made them suspend in three weeks. Since then we have exported \$20,000,000 of gold. The banks of the three cities hold \$6,000,000 less than they did in April. The weekly export is \$3,000,000, and the premium is 9 per cent.

The public are losing confidence in Congress, and a slight movement like that of December, will cause all the gold to disappear in a week, and the premium become enormous. The quantity of gold in the country is by no means large. At least \$60,000,000 of what there was is hoarded at the South, and the available balance is small, as seen in our March number.

## ENLARGEMENT OF THE CANALS.

MEMORIAL OF HON. S. B. RUGGLES TO THE PRESIDENT ON BEHALF OF  
THE STATE OF NEW YORK.

*To his Excellency, Abraham Lincoln, President of the United States :*

THE Legislature of the State of New York, on the 22d of April, 1862, passed an act to adapt the canals of the State to the defense of the northern and northwestern lakes. Their joint resolution of the same date requested the Governor of the State "to take such measures as he shall deem necessary and proper for inviting the attention of the general government to the measures proposed in the act, and their great importance to the national interests."

Pursuant to that resolution, the Governor, having transmitted to the President of the United States a copy of the act duly authenticated, specially delegated the undersigned, as having been officially connected for several years with the canals of the State, to present the subject proposed in the law to the consideration of the general government. In the execution of that duty, the principal facts necessary to be understood have been verbally communicated to the President, but, under his permission, they are now respectfully laid before him in writing, and somewhat more in detail.

They fall under the two general heads of the national defense and the national commerce.

1. The practicability of employing canals as engines of national defense mainly, arises from the recent unexpected but very important discovery, that impregnable mail-clad vessels, comparatively small in size, are capable of effectually resisting vessels of vastly greater dimensions; and further, that one such impregnable vessel would be able, in a few hours, to destroy a whole squadron of vessels-of-war of the descriptions heretofore in use. This striking truth, so signally demonstrated by the recent achievement of the Monitor upon the waters of the Chesapeake, almost within the hearing of the national capital, must inevitable work a radical revolution in naval warfare. Among its other singular and immediate results, is the greatly increased importance which it imparts to canals of moderate volume, heretofore supposed to be useful for carrying vessels of commerce. As carriers of impregnable vessels-of-war, they assume at once a new dignity. They rise to the rank of naval channels, and become necessary parts of the machinery of war.

The interesting question then arises, what dimensions are required for a canal to enable it to pass impregnable vessels adequate to the defense of our national waters, and especially the great chain of lakes?

On this point testimony is at hand of the highest authority, derived from a source no less reliable than Ericsson himself, the inventor of the Monitor. A letter herewith transmitted from that distinguished engineer

and mechanician states: "That an impregnable war vessel of 25 feet wide, and 200 feet long, with a shot-proof turret, carrying a gun of 15-inch caliber, with a ball of 450 pounds, and capable of destroying any hostile vessel that can be put on the lakes, will draw, without ammunition, coal, or stores, but 6 feet and 6 inches water; and, consequently, will need only a canal wide and deep enough to float a vessel of those dimensions, with locks of sufficient size to pass it."

The Erie and Oswego canals of the State of New York, respectively connecting the Hudson River with Lake Erie at Buffalo, and Lake Ontario at Oswego, are 70 feet wide, and 7 feet deep; but their present locks are too small for the purpose in question. The cubic contents of a lock required to pass the impregnable iron vessel above described are about 38,500 feet. The present Erie and Oswego locks, which are but 18 feet wide, 110 feet long, and 7 feet deep, contain but 13,800 cubic feet. If enlarged to 26 feet wide, and 220 feet long, (to admit the swing of the gates,) they would contain 39,900 cubic feet.

In point of capacity, the canals of Canada far exceed those of the State of New York. The locks of the series of canals around the rapids of the St. Lawrence, within the British dominions, which afford direct and easy access from the Atlantic into Lake Ontario, are 45 feet wide, 200 feet long, and 8 feet deep, and have a cubic capacity of 72,000 feet. The present locks of the Welland Canal, which opens a similar passage from Lake Ontario into Lake Erie, are 26 feet wide and 150 feet long, with a cubic capacity of at least 31,200 feet, which may be readily increased to the full amount required by lengthening the locks.

The Rideau Canal, which connects Montreal with Kingston, on Lake Ontario, through an interior route by way of the Ottawa River, is 5½ feet deep; but its locks are 33 feet wide, and 142 feet long. Their present cubic capacity is only 23,430 feet, but if lengthened to 220 feet, would be 36,600. The greater width of the lock would measurably compensate for the shallow draught, and permit the passage of war vessels of dangerous dimensions.

From this brief summary it will be seen at once that the British Government, whether designedly or not, has secured to itself means of naval access to the lakes far exceeding those the United States now possess, and that the only appropriate and certain remedy for this evil is the adequate enlargement, without delay, of the locks of the American canals leading into that important chain of waters. On this point the opinions of our intelligent and loyal citizens are very decided. Numerous petitions have already reached Congress from the inhabitants of the cities adjacent to the lakes, (including, among other eminent individuals, a former President of the United States,) in which they forcibly and truly state that "the United States have no impediment to offer if, during the season of navigation, a fleet of British gunboats from the Atlantic shall purpose to take possession of the entire chain of lakes and connecting rivers," and earnestly solicit the government to adopt measures for their defense, without delay, by the enlargement of the locks of the Erie and Oswego canals, expressing their opinion that "the immense national interests involved in the military possession of these waters can be secured in no other mode at so small a cost of time and money."

The country has learned with much gratification that the Committee on Military Affairs of the House of Representatives, in Congress, have



already had this subject under attentive examination, as forming part of a general system of defense. In the comprehensive and truly national report recently made to the House by that committee, they express their earnest conviction that "a small fleet of light-draught, heavily-armed, iron-clad gunboats could, in one short month, in despite of any opposition that could be made by extemporized batteries, pass up the St. Lawrence, and shell every city and village from Ogdensburg to Chicago. At one blow it could sweep our commerce from that entire chain of waters. Such a fleet would have it in its power to inflict a loss to be reckoned only by hundreds of millions, so vast is the wealth thus exposed to the depredations of a maritime enemy." The vivid language of their report utters but the truth in declaring that the wide spread cities and commerce of these great inland seas "are now as open to incursion as was Mexico when invaded by Cortez."

It is no sufficient answer to assert that these canals of Canada, affording facilities of access so dangerous, were constructed only for commercial purposes. Nor indeed would it be true. Taught by the experience of the war of 1812, the attention of the most eminent British statesmen and commanders has long been occupied with the importance of these canals, not merely as commercial but as military channels. Their struggles in that war to secure the naval command of Lake Ontario, together with the conflicts on Lake Erie and Lake Champlain, are well remembered. In 1814 the Duke of WELLINGTON declared to the British ministry "that a naval superiority on the lakes is a *sine-qua-non* of success in war on the frontier of Canada." The treaty of peace in 1815 was followed, in 1817, by the "diplomatic arrangement," by which Great Britain and the United States mutually agreed to dismantle their vessels-of-war on the lakes, and reduce their naval force on each side "to one vessel of one hundred tons burden on Lake Ontario, and one on Lake Champlain, each armed with one 18 pound cannon, and on the upper lakes to two such vessels, armed with like force."

In 1819, but two years after that pacific arrangement, the Duke of RICHMOND, then Governor-General of Canada, transmitted to the Secretary of State, for the colonies, a report from Lieutenant-General COCKBURN in favor of a line of water communication, unquestionably intended as a military work, leading from Montreal, by way of the Ottawa River and the interior chain of minor lakes, of which the Rideau is one, to Kingston, on Lake Ontario. In 1823 it was determined that the cost of the work should be wholly defrayed by the mother country. In 1825, a commission, of which Major-General Sir J. CARMICHAEL SMITH was president, reported the estimated expense to the Duke of WELLINGTON, then a member of the British Government, whereupon the canal, with connecting works on the Ottawa, was constructed, openly and avowedly as a military work, by the royal engineers, under the direction of the Ordnance Department. It was completed in or near the year 1831, at a cost exceeding a million sterling. The preamble of the act of the local Parliament in Canada, authorizing the taking of lands for the purpose, passed in February, 1827, expressly recites that "His Majesty has been pleased to direct measures to be immediately taken, under the superintendence of the proper military department, for constructing a canal connecting the waters of Lake Ontario with the river Ottawa, and affording a convenient navigation for the transport of naval and military stores."

In 1831, Colonel DURNFORD, of the Royal Engineers, in his testimony before a committee of the British Parliament, stated that provision was made for block-houses at several of the locks of the canal, and that the work being intended as a military communication, it was necessary that fortifications and works of defense should be erected at the entrance of the canal, and in its immediate vicinity at Kingston. A fortress of very considerable strength was accordingly erected, and is now the most important military work on Lake Ontario.

The completion and defense of this interior line of water communication has been followed by the construction of a series of short canals, of much greater size, along the St. Lawrence River and around its rapids. Their capacity very far transcends any commercial necessity which can reasonably be expected on that line of communication for a long time to come. In point of fact, the descending trade of the St. Lawrence, (necessarily preponderating, like that of the Erie Canal, largely over the ascending,) is not one-third of that of the Erie Canal. Nevertheless, the existing locks of the Erie Canal are adequate to pass a descending trade double of that it now enjoys; while, again, the locks on the St. Lawrence canals, 45 feet by 200, have double the capacity of those on the Erie; from which three elements it is arithmetically evident that the locks of the St. Lawrence have at least twelve times the capacity really required for any purpose of existing commerce.

It was the deep conviction of danger in this inequality between the canals of the two countries for the purposes of national defense, and the absolute necessity of regaining, without delay, that equality of naval access and condition intended to be secured by the treaty stipulation of 1817, which led the Legislature of New York to pass the act of the 22d of April last. That such were the views of the Legislature, fully appears from the reports on the subject made in their Senate and Assembly. The report of Mr. OGDEN, Chairman of the Canal Committee of the Assembly, substantially confirmed by that of Mr. COOK in the Senate, truly asserts that these large dimensions of the Canadian locks, is so far beyond the meager wants of Canadian commerce at the time, suggest that the higher object of military defense was not lost sight of by far seeing British statesmen in their construction; and they will not complain if, on a subject of so much moment, we follow their example. A preparation for defense and provision for the rapid concentration of military and defensive power in time of need could not be construed, by any logical or fair course of reasoning, into hostile intent; nor would it provoke criticism from a nation so careful as Great Britain in placing herself in defensive position.

"Defensive measures are always pacific measures; their bearing and tendency are toward peace; they avert rather than provoke war; induce caution on the part of rivals and antagonists, and never provoke hostilities on the part of friends. It is submitted with entire confidence that the means of placing gunboats speedily and certainly on the border lakes will tend greatly to prevent war with our northern neighbor. She would respect us more, and surely not fear us less, if we stand on a perfect equality with herself in the particular referred to."

In opposition to these sensible and patriotic views, it has been asserted that no real necessity exists for enlarging the channels of our American canals for the passage of gunboats, but, on the contrary, that the safety of our cities and commerce on the lakes may be fully and surely provi-

ded for either by accumulating and storing materials for gunboats at points on the canal near the lakes, or, in case of war, by marching a military force into Canada to seize and destroy its canals.

In respect to the first of these expedients, it may be observed, that even if it could be lawfully and wisely adopted under the provisions and true intent of the existing treaty, the very materials thus to be stored for any adequate number of vessels, (estimated at \$200,000 each,) and probably destined only to decay through a long course of years, would cost very nearly, if not quite, as much as the whole expense of enlarging the ninety locks on the Erie and Oswego canals; and, furthermore, that we should much underrate the resolution and activity of our vigorous adversary in assuming that, with his large and powerful fleet of gunboats, ready at any moment to be precipitated into the lakes, he would give us time to complete our vessels before the mischief would be done.

In respect to the proposed seizure and destruction of the Canadian canals, it may in like manner be observed, and that too in a spirit of perfect amity, that our British brethren, sharing with ourselves a descent from common ancestors, inherit, at least, a reasonable amount of courage, if not of obstinacy; that the matter of seizing and destroying their canals, however trifling it may seem, would hardly go by default; and, at any rate, that their numerous and swift-sailing gunboats could ascend and ravage the whole coast of the lakes before our military columns, of adequate force, could be put in motion.

Such, too, seems to be the present opinion of the British people as manifested through their public journals. The leading article in the *London Times* of the 7th of January last, in reference to the disturbing affair of the Trent, then pending, declares:

“That as soon as the St. Lawrence is opened again there will be an end of our difficulty. We can then pour into the lakes such a fleet of gunboats, and other craft, as will give us the complete and immediate command of those waters. Directly the navigation is clear, we can send up vessel after vessel without any restriction, except such as are imposed by the size of the canals. The Americans would have no such resource. They would have no access to the lakes from the sea, and it is impossible that they could construct vessels of any considerable power in the interval that would elapse before the ice broke up. With the opening of spring, the lakes would be ours.”

It was after a careful examination of this important matter in both houses of the Legislature of New York, and taking into view not only the greatly exposed condition of her northern water frontier, but the immense stream of lake commerce pouring into her territory, and through her canals and railways, not only from the mineral and grazing districts of northern Pennsylvania and Ohio, but from the truly imperial group of agricultural States adjacent to the upper lakes, that the act of the 22d of April was passed by large majorities both in the Senate and Assembly, placing all the State canals connected with the lakes at the service of the general government. By the provisions of the act, the United States will become fully entitled, whenever it shall provide the pecuniary means for enlarging the locks on the Erie and Oswego canals, to the perpetual right of passage through those canals “free from toll or charge, for its vessels-of-war, boats, gunboats, transports, troops, supplies, or munitions of war.” The act grants a similar right of perpetual passage in case the govern-

ment shall provide the means for two other works, one being a branch canal (now partially constructed) from the Erie Canal to the safe and commodious harbor of Great Sodus Bay, on Lake Ontario, furnishing a very desirable rendezvous for naval vessels; the other being the enlargement of the Champlain Canal, on the direct route of the old and natural war path of our revolutionary history, and opening a channel of rapid and easy access to an important military point on the St. Lawrence River, before Montreal, where the chain of water communication between Upper and Lower Canada might be broken.

The cost of enlarging the locks on the Erie and Oswego canals, to be paid by the United States, will not exceed \$3,500,000. That of the branch to the Great Sodus Bay is not yet definitely ascertained. The enlargement of the Champlain Canal has been estimated by the State engineer at \$3,700,000; but with due economy may probably be considerably reduced below that amount.

The enlargement of the locks on the Erie and the Oswego canals can be easily completed in a single winter, and, if necessary, by the 1st of May next. Up to the 30th of September, 1861, the State had expended, in constructing these two canals, and in enlarging their dimensions to the size required for the commerce of the lakes, the sum of \$43,575,167. Their nett tolls, deducting repairs, are wholly devoted to the reimbursement of the debt incurred in their enlargement, and are kept at the lowest rate consistent with that object.

These then are the prominent features of the canals which the legislative act of New York has placed at the service of the government. In view of her peculiar geographical position in the Union, with three of the six great northern lakes (Champlain included) lying immediately on her border, she now feels entitled respectfully but earnestly to claim that the national duty of defending such a chain of seas, not only from imminent and immediate danger, but the remotest chance of assault and ravage by a maritime enemy, is among the highest and most imperative obligations of the general government. In entering into the Union, of which, through every change of circumstances, she has been a loyal member, she voluntarily and cheerfully surrendered to the general government, without stint or reservation, the rich revenues from foreign imports, which her geographical position, commanding at once the ocean and the lakes, would have enabled her, with any views less comprehensive and national, practically to monopolize.

For the sake of that priceless Union, she gave up all the common treasury, for the very purpose of enabling the national government then called into being fully and faithfully to discharge its sovereign and transcendent duties, among which none was more conspicuous or emphatic than the solemn and perpetual obligation imposed by the Constitution, "to provide for the common defense of the States." She does not presume or desire to calculate the value or count the cost of that glorious national structure, and nevertheless, in view of the scanty measure of protection and relief she now asks, far less for herself than the loyal group of sister States richly clustering around the lakes, she cannot refrain from stating that the duties collected at the single port of New York, and faithfully paid over to the national treasury, already amount to \$971,063,527; of which immense sum \$355,235,855 is included in the single decade from 1850 to 1860. These duties, it is true, were eventually paid by the con-

sumers of foreign products scattered broadcast throughout the nation, but it must be remembered that of those consumers a population of 10,58,005 are embraced within the States adjacent to the lakes, without including the narrow but very valuable strip of territory on those waters belonging to Pennsylvania.

How much, or rather how little has been done by the general government to provide for the common defense of the State around these inland seas from hostile attack, sufficiently appears from the fact that the whole amount appropriated for every species of lake defense, up to the present moment, is but \$1,676,650, while on the other hand, the cost of the fortifications alone on the Atlantic and Gulf of Mexico, to say nothing of the hundreds of millions expended on the navy, has been \$34,487,809.

To these facts the attention of the general government is now invited, in no spirit of complaint or supplication, but only of unaffected filial respect. New York did not complain even in 1811, when the government, then administered by President MADISON, denied the petition presented in her behalf by DE WITT CLINTON and Governor MORRIS, two of her first canal commissioners, seeking the scanty measure of aid which, at that early day, she really required for pushing the Erie Canal through her nearly untrodden territory out to the great national wilderness around the lakes. The refusal, not particularly parental in tone or manner, served only to invigorate her youthful and unaided efforts, and compelled her to win alone the reputation she gladly would have shared with the ever-honored Union, of which she was, and is, and ever will remain, a dutiful and obedient member. But the present exigencies of her canals, like those of the kindred canal of Illinois, are wholly national; the duty of adapting them to the common defense emphatically and exclusively national; and it would be neither just nor generous to require either her or Illinois separately to burthen their people for objects plainly of primary interest and necessity to all the States.

2. The question then arises, cannot the United States now afford to expend the amount necessary to defend these lakes, with their immense fleets of commercial vessels, from maritime aggression; and this brings us to the class of facts secondly above proposed for examination, involving the national importance of the commerce of the lakes.

They will conclusively show, that the national commerce, for which the lakes afford the natural channel, constitutes a fundamental and vital element of our national strength; that it has now attained such dimensions that the general government cannot, wisely or safely, neglect or disregard it; and that, even for fiscal purposes, its pecuniary value is so great, with a prospect of increase so enormous, that the nation cannot afford, for a moment, to leave it exposed to any possibility of disturbance.

The present condition and past growth of this commerce will need to be stated somewhat in detail. It is so interwoven with the Erie Canal, its great national outlet to the ocean, that the history of neither can be complete without including both.

The Erie Canal, completed in 1825, with the scanty dimensions of forty feet wide and four feet deep, was regarded, for several years after its completion, by a considerable portion of our population, as a local work, mainly intended for the State of New York and its local commerce. Nor was this narrow view, at the time, particularly surprising, for, as late as



the close of navigation in 1837, of the total weight of the cargoes carried on the canal, (somewhat inaccurately denominated in the official tables as its "*tonnage*,") being 387,506 tons in all, the local proportion furnished by the State was 331,251, while that of the cargoes coming from States west of her limits, and which, for brevity, may be called its "national commerce," amounted only to 56,255. Notwithstanding this disparity, and the slender portion then furnished by the West, an effort was made in the Legislature of 1838, for nationalizing the canal, at least, in public opinion, by pointing out the latent capacity of the agriculture of the States around the lakes, and its inevitable effect in reversing the proportions then existing between the local and the national cargoes. Differences of opinion, honestly entertained, on such a point, could be settled only by time. Twenty-four years have now elapsed, and the following is the result :

## TONS REACHING TIDE-WATER BY THE ERIE CANAL.

|            | Local.  | National. |
|------------|---------|-----------|
| 1837 ..... | 331,251 | 56,255    |
| 1842 ..... | 258,672 | 221,176   |
| 1847 ..... | 618,413 | 812,840   |
| 1856 ..... | 374,580 | 1,212,550 |
| 1861 ..... | 291,184 | 2,156,425 |

It will thus be seen that the proportions which, in 1838, were four to one in favor of the "local" commerce, were so entirely reversed that in 1861 they became nearly eight to one in favor of the "national."

By further analyzing the official tables we shall readily detect the cause of this immense increase of the national commerce, in the rapid development of the West, which may be regarded as "national agriculture," in contradistinction to the local agriculture of New York. The comparative progress of this interior agriculture is strikingly manifest in the cargoes of wheat and wheat flour carried by the canal, being, in barrels :

|               | Local.  | National. |
|---------------|---------|-----------|
| In 1837 ..... | 747,676 | 284,902   |
| In 1842 ..... | 543,064 | 1,146,292 |
| In 1847 ..... | 791,106 | 3,989,232 |
| In 1856 ..... | 276,034 | 3,209,741 |
| In 1861 ..... | 745,022 | 6,712,233 |

If to this be added the very important element of Indian corn (the transportation and consumption of which have reached only their infant stages,) the contrast will yet be more striking.

|                                                            | Bbls.             |
|------------------------------------------------------------|-------------------|
| National wheat and flour carried on the canal in 1861, was | 6,712,233         |
| National corn was .....                                    | 6,796,390         |
| <b>Total</b> .....                                         | <b>13,498,523</b> |
| Local wheat and flour was .....                            | 745,022           |
| Local corn was .....                                       | 210,510           |
|                                                            | <hr/>             |
|                                                            | 955,532           |

showing a national proportion, in these two cereals, exceeding thirteen to one.

A similar disparity also exists in the products of "the forests," being in tons—

|               | Local.  | National. |
|---------------|---------|-----------|
| In 1837 ..... | 174,733 | 7,637     |
| In 1842 ..... | 125,623 | 31,069    |
| In 1847 ..... | 328,652 | 117,323   |
| In 1856 ..... | 173,608 | 335,797   |
| In 1860 ..... | 166,687 | 647,705   |

The fact may also be added, though rather incidental to the main subject, that the 494,057 tons of mineral coal transported through the canal and its branches in 1861 were exclusively furnished by the coal fields and coal bearing mountains of Pennsylvania and Ohio, and transmuted into gold by that very transportation.

It is on these facts that we claim that the Erie canal, with the Oswego canal as its co-equal and complement, has now practically become what its early projectors and friends insisted it would eventually become, a national canal. Like the national city of New York, geographically included within the limits of a single State, it belongs virtually to the nation. Its great office is to transport, not the trifling local products of any single state, but the accumulated products and fabrics of great groups of States to and from each other, and to and from foreign nations. Any measure for protecting its commerce, or in any way cheapening its means of transportation, inure to the benefit of the State of New York only in the scanty proportions above exhibited, being at present but one in thirteen for its most valuable cargoes; and even that proportion, small as it is, must steadily diminish under the resistless progress of our western agriculture.

The Erie and Oswego canals carry but a portion of the commerce of the lakes. Nearly all the merchandise which ascends the lakes, requiring expeditious movement, is carried, as it properly should be, by the railways, which also carry a small portion of the descending cargoes.

Of the descending agricultural products, the proportions of flour and grain coming from the lakes and carried eastward, in 1861, were as follows:

|                                            |               |
|--------------------------------------------|---------------|
| From Buffalo .....                         | 51½ per cent. |
| From Oswego .....                          | 15½ "         |
| From Dunkirk and Suspension Bridge.....    | 9 "           |
| From minor points in New York.....         | 11½ "         |
| Total.....                                 | 87½ "         |
| Descending the St. Lawrence to Montreal... | 12½ "         |
| Grand total.....                           | 100           |

In respect to the total amount of the commerce of the lakes, it may be stated in general, that the descending portion consists mainly of agricultural products, with a moderate per centage from the forests and mineral regions; and that the ascending portion embraces the equivalent amount of manufactures, merchandise, and other products or property received in exchange. Its pecuniary value in both directions is between two and three hundred millions.

This descending commerce is almost entirely the growth of the last twenty years. In 1837 it contributed to the Erie canal, in values, but \$4,713,636. So slow was its early progress that, as late as 1841, the amount of wheat and flour received at Buffalo was only 5,785,960 bushels; and of Indian corn, but 201,031 bushels.

|                                               |            |
|-----------------------------------------------|------------|
| The wheat and flour increased in 1851 to..... | 10,609,341 |
| The wheat and flour increased in 1856 to..... | 14,095,911 |
| The wheat and flour increased in 1860 to..... | 24,014,324 |
| The wheat and flour increased in 1861 to..... | 37,973,175 |
| The corn increased in 1851 to.....            | 5,988,775  |
| The corn increased in 1856 to.....            | 9,633,277  |
| The corn increased in 1860 to.....            | 11,386,217 |
| The corn increased in 1861 to.....            | 21,026,657 |

being 59,007,832 bushels of these two cereals, with about 2,000,000 of smaller grains.

The total amount of cereals of all descriptions carried on the lakes, and consisting almost exclusively of wheat and flour and Indian corn, as extracted from the carefully prepared reports of the boards of trade of their principal cities, is as follows:

|                                |             |
|--------------------------------|-------------|
| From Chicago.....bush.         | 54,167,007  |
| From Milwaukee.....            | 18,778,629  |
| From Toledo.....               | 18,706,510  |
| From Detroit.....              | 7,167,450   |
| Estimated for other ports..... | 3,000,000   |
| Total.....                     | 101,819,596 |

The proportions may not be entirely accurate, but they suffice for the main purpose, which is to bring boldly out the one, gigantic and all but overwhelming fact, that the cereal wealth yearly floated on these waters now exceeds 100,000,000 of bushels. It is difficult to present a distinct idea of a quantity so enormous. Suffice it to say that the portion of it (about two-thirds) moving to market on the Erie and Oswego canals requires a line of boats more than forty miles long to carry it. The whole 100,000,000 of bushels, if placed in a single line of barrels of five bushels each, would span the American continent from New York to San Francisco, with a remnant nearly long enough to cross the Pacific. Shall not the American fleets, which yearly carry a mass of food so enormous, be protected from maritime assault and devastation?

The limits of the present communication forbid the full consideration of the transcendent importance of a cereal wealth, so immense and capable of such enormous increase. Its existence is a new fact in the history of man. In quantity, it already much exceeds the whole export of cereals from the Russian empire, the great compeer of the United States. Under the comprehensive and magnanimous statesmanship of that truly continental power, a magnificent system of canals, and river improvements, and railways, steadily prosecuted through every political vicissitude, from the days of PETER THE GREAT down to the reign of the present enlightened Emperor, connects its vast agricultural interior with the

ocean and the Mediterranean, through the Baltic, the White, and the Black seas—encircling the empire with points of agricultural export, stretching round from Odessa to Riga and St. Petersburg, and thence away to Archangel—and yet its total yearly export of cereals was, in 1854, but 27,000,000 of bushels, and in 1857 only 49,000,000, being a little less than half the amount carried in 1861 upon our American lakes.

It was the constant aim and effort of ancient Rome, even in the zenith of its power, to provision the capital and the adjacent provinces from the outlying portions of the empire. The yearly crop contributed by Egypt, under PTOLEMY PHILADELPHUS, was 15,000,000 of bushels. Under the prudent administration of the Emperor SEVERUS, a large store of corn was accumulated and kept on hand, sufficient to guard the empire from famine for seven years. The total amount thus provided was but 190,000,000 of bushels. The product of 1850 of cereals in the five lake States of Ohio, Michigan, Indiana, Illinois, and Wisconsin, was 252,000,000 of bushels; being of wheat 39,000,000, and of Indian corn 177,000,000. In ten years, as shown by the census of 1860, it increased to 354,000,000 bushels; being of wheat 78,000,000, and corn 275,000,000, the residues consisting of the smaller grains.

Nor is this all. A prospect far more grand and national is just opening on the commerce of the lakes. The great and long-cherished measure of connecting their southwestern extremity, by an adequate water communication, directly with the Mississippi, near its confluence with the Missouri, and thus uniting, in one vast continental system, the broad basin of the lakes with the great network of navigable rivers, outspread for thousands of miles over the wide expanse of the great central interior of the Union, is now awaiting the decision of the national Legislature, which, in view of responsibilities so august, might well resume the significant title of "*Continental Congress*," adopted by their fathers. Let us not attempt to lift the veil from a future so stupendous, inevitably destined to repeat, on a yet grander scale, that immense agricultural development around the lakes which has now become historical. The rich cereals of Missouri, and Iowa, and Minnesota, and Kansas—States just creeping from their cradles—are already numbered by hundreds of millions of bushels, much of it perishing or wastefully consumed for fuel, merely for the want of this new avenue to the Atlantic.

The prediction in 1838 that our great interior States must eventually "become the common granary of the Union, and discharge the duty of supplying subsistence to the surrounding communities," though seriously questioned at the time, is already nearly, if not entirely verified. The fundamental law of demand and supply, necessarily causing the most advantageous distribution of labor, especially in a continental nation united like ours, under a common government, is now, at least partially, obeyed. The wheat crops of New York, whose principal and proper office is commerce, has already fallen to 8,681,000 bushels, hardly enough to feed her population for one-third of the year. The bushels produced in 1860 by all New England were but 1,077,000, sufficient only for three weeks' consumption. Surely, if any portion of our whole republic is especially interested in securing the food-bearing vessels of the lakes from the possibility of capture or interruption, it is the 3,000,000 of sagacious, loyal, and thrifty people who inhabit the granite ranges and rocky promontories of that ancient and noble family of States who, finding it easier

and better to spin than to plow, compel their numerous and sparkling waterfalls, so richly scattered over their rugged country, to purchase from the fertile West the bread which they require. The magic power of the Union so entirely abolishes East and West, that the fabrics of the East are practically only the food of the West, reappearing in another shape, and in that more portable and convenient form, increasing the sum of our foreign exports.

It was a fortunate, if not a providential, coincidence, which led, in 1846, to the removal of the artificial and arbitrary restraints on the freedom of commerce created by the British corn laws, just as the vast agricultural power of our lake States began to dawn on the civilized world. The imports of cereals into the British Islands instantly rose from 37,918,000 bushels in 1846, to 115,059,000 bushels in 1860; and it may be safely affirmed that the year will never again arrive when those islands will yield food enough for their own consumption. Despite any and every struggle, the stern necessities of hunger will bind them at last, with bands stronger than iron, to the nation that can feed them.

Our tables of exports of domestic produce for the last forty years are replete with instruction as to the commercial and fiscal value, for national purposes, of the commerce of the Lakes. The total value of breadstuffs and provisions yearly exported to foreign countries, as exhibited by those tables, was \$12,341,901 in 1821; and in 1836, had actually diminished to \$10,624,130; and again in 1838, to \$9,636,650. Up to 1845, it had increased only to \$16,743,421, but in 1847, when the agricultural products of the great interior States began to pour in heavily from the Lakes (as shown by that unerring barometer, the Erie canal,) it rose at once to \$68,701,921.

Since that time it has fluctuated more or less, with the varying necessities of the nations of Europe; but, in 1856, the amount had reached \$77,187,301, which was again increased in the year ending the 30th of June, 1861, to \$93,969,682, exclusive of \$4,245,410 in cattle, hides, and tallow, which, for the present inquiry, might be fairly included. It is a fact of much significance that, in the year last mentioned, the total value of the cotton exported was but \$34,051,482, and during the current year little or nothing, conclusively showing that we shall be compelled, at least for a season, mainly to rely on our own exports of food and our manufactures, which are its direct and indirect derivative, for the means of importing the duty-paying foreign commodities from which the Treasury must derive its revenues, apart from taxation. The value of the manufactures exported in the year last mentioned (excluding those of cotton, which were \$7,957,038) was \$25,149,037, which, added to the \$93,969,682 of food, makes total export of \$119,118,689. This sum will purchase its equivalent in foreign commodities, on which an average import duty of 25 per cent would be \$29,779,471; conclusively demonstrating that the commerce of the lakes, for which these national canals furnish the necessary outlets to the seaboard, has become eminently and emphatically national in its character and consequences; that it constitutes a fundamental and vital element of our national strength, political, commercial, and fiscal; and that, in all these respects, it has now attained a national importance that American statesmen will not willingly, and cannot safely disregard.

With the view thus presented of the direct influence of the agricultu-



ral exports in securing duty-paying imports in return, it is really difficult to prescribe a limit of expenditure for securing the completion of cheap and capacious navigable channels, by which to augment the quantity brought to the seaboard; but it is certain that, if the due enlargement of the New York and Illinois canals were to cost even \$20,000,000, and should increase the yearly quantity but 10,000,000 of bushels, the import duties on the foreign commodities which that increase would purchase, would shortly reimburse the whole amount.

In conclusion, it remains only to notice an objection, which possibly may be urged by individuals of timid temperament, that the great national work of uniting the Hudson, through the canals and lakes, with the Mississippi, by an unbroken water communication, affording ample means, not only of public defense, but of rapidly increasing the national commerce, and its consequent contributions to the common treasury, is a measure to be considered only during a period of peace, and should not be undertaken or encouraged at the present time, nor till the pending effort to dismember the Union shall be finally terminated.

The force of this objection is not apparent. On the contrary, if the nation has temporarily lost a portion of its resources, it needs all the more to foster and replenish the residue. If one half the body politic be paralyzed, it is surely wise to strengthen the other. Nor is the real ability of the government to discharge all its duties really impaired to any serious extent. Despite the sneers of open enemies or treacherous friends on either side of the Atlantic, our country, in substantial credit, in agricultural wealth, in manufacturing power, and, above all, in every element of moral force, never stood higher.

Nor would any national adversity, however severe, justify the abandonment or disregard of a distinct constitutional obligation, or the neglect of a measure plainly calculated to increase our fiscal power, and encourage the industry and commerce of our loyal people. The hour of adversity is the time to try both men and nations. It is the opportunity kindly accorded to them by Providence, to show to the surrounding world their steady courage, their calm consciousness of strength, their indomitable self-sustaining power.

Such has been the example of every nation truly great. The British government bravely contending, all but single handed, for nearly twenty years against the colossal power of the first NAPOLEON, did not for a moment neglect to foster the commerce which enabled it to maintain that very struggle. The sturdy old Hollanders, after inundating all their lands to resist their haughty enemy, fitted out a fleet to sweep the Channel. It was amid the long and wasting wars of LOUIS XIV., that his great canal of Languedoc was constructed, under the consummate statesmanship of COLBERT, to connect the Atlantic with the Mediterranean. Its triumphant completion, immortalized by the historian and the poet, was solemnly celebrated amid the benedictions of the Church, and the acclamations of assembled France.

The American Lakes, with the enlarged canals of New York and Illinois as their chief accessories, if laid down on the map of Europe, would reach from the Atlantic to the Volga, and open an unbroken navigation through a majestic line of principalities, monarchies and empires, for ages disunited, and widely differing in language, laws, and race. By a beneficent Providence, this splendid series of connecting waters has been

committed to the American Union, for its highest purposes, both in war and peace. It is for the honored head of the government now to show that, fully recognizing this solemn trust, he is ready, with the co-operation of Congress, to go vigorously forward, and complete a work so important to the American people, for all coming ages.

Respectfully submitted in behalf of the State of New York, by

SAMUEL B. RUGGLES.

Washington, June 9th, 1862.

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#### THE STEVENS (HOBOKEN) BATTERY.

The Washington correspondent of the Philadelphia *Press* says :--

It will be remembered that early in the present session of Congress a bill was passed making an appropriation of \$783,000 for the completion of this battery, subject to the direction of the Secretary of the Navy. The Federal Government has expended nearly half a million upon the battery, and Mr. STEVENS some three hundred thousand dollars. The commission to which the Secretary referred the measure, reported that the battery could not be completed unless certain alterations and improvements were made, and here the matter rested ; but Mr. STEVENS is now in Washington, and yesterday made a proposition to Congress and the Administration to complete the battery out of his own funds. He asks that the government should convey to him all its right and title to the STEVENS battery, and cancel the mortgage given by his brother ROBERT, for the faithful performance of his contract, and he then binds himself under a penalty of \$100,000 to finish it out of his own funds, as a war steamer, in one year, to throw a heavier broadside than any war steamer in the world now throws, and after its completion, the government shall have the option of buying it for \$783,000, the amount of its appropriation, and the estimated cost by the late board. Should the government refuse to accept it, it will then become the property of Mr. Stevens.

## STATISTICS OF TRADE AND COMMERCE.

1. DOMESTIC HIDE TRADE. 2. THE INDIGO TRADE. 3. HUNGARIAN WINES. 4. THE LUMBER TRADE OF CANADA. 5. THE SUPPLY OF COTTON.

## DOMESTIC HIDE TRADE.

A CORRESPONDENT in the *Shoe and Leather Reporter* makes the following statements: "All direct attempts at estimating the actual production of domestic hides have failed. The census, which should aid us in this investigation, is either silent or so imperfectly compiled as to lead us to no satisfactory conclusion.

"Let me attempt an approximate estimate by a course of statement and reasoning, the fallacy of which can readily be detected if erroneous; but if true the importance of the conclusion to which we are led will be perceived by all.

"The cities of New York and Brooklyn contain a population of one million—and they consume the beef from two hundred thousand cattle. This is a fact which we know. Now if we here consume no more beef than the average of the population of the United States, then we conclude that the 30,000,000 population must consume the beef from 6,000,000 cattle—consequently there must be at least this number of hides taken off and enter into consumption.

"Do the people of these cities consume more meat on the average than the whole population of the United States? The first impulse is to answer, yes; and this may be so, and if so, then to the extent of this difference the estimate may be varied—but before coming to that conclusion, please consider that while we have a large wealthy class that consume poultry, game, and oysters, we also have a large number of poor who cannot afford meat, and then add for all classes the immense consumption of fish, lobsters, clams, &c., which are consumed to a much greater extent here than in any other portion of the United States, and then the further fact that very large quantities of cured meats from the West are brought here, besides the boat and car loads of beef and small meats from all along the lines of our railroads, and particularly the very large supply in the fall season from the Hudson River—and I think few will think the estimate an unfair one.

"All will concede that the amount appears startling, but I am convinced the estimate is within the truth, and all the more when I consider how very largely beef enters into our exports to the West Indies, the fisheries on our northeast coast, and to all parts of Europe.

"From another point of view we arrive almost at the same conclusion.

"The consumption of leather made up in the form of boots and shoes is estimated at 40 per cent of the entire value of the consumption of these articles, 60 per cent being estimated for labor and other materials.

"In England, where economical statistics are more prized and more

fully kept, perhaps, than in any other country, they estimate the cost for the covering of the feet at sixteen shillings, or about four dollars. It must be much more here, since our people more generally wear boots than there; and besides our climate and the clearing and the occupation of new land must demand more substantial covering for the feet than in an old country with a much milder climate.

"Estimating then, as I think I am justified in doing, the cost of boots and shoes for each inhabitant at four dollars, for a population of 30,000,000, we have \$120,000,000, of which \$50,000,000 is credited to leather and \$70,000,000 to labor. Now add to this amount the leather used for belting, harness, trunks, and carriages, certainly not less than \$10,000,000 more, and we shall have \$60,000,000 worth of leather consumed.

"Where does the raw material come from for this vast aggregate. If we estimate the foreign importation at 1,500,000, and the domestic at 6,000,000 hides, and compute the value at four dollars each, we shall have \$30,000,000 for the raw material. It will cost from \$15,000,000 to \$18,000,000 to manufacture this raw material, thus leaving us from \$10,000,000 to \$12,000,000 for calf, kip, and sheep skins, both foreign and domestic, which enter into the consumption of shoe leather; for be it remembered I have not included book-binders' and hatters' stock, nor provided for the thousands of other purposes into which leather enters and is consumed."

On the strength of these statements the writer concludes, that it is more important we should watch hereafter the causes which affect the domestic production, than foreign importation. He also enumerates the following as some of the causes which effect the production of native hides:

"1st. The demand for and price of beef, not only at home, but abroad; for if beef is low cattle are withheld.

"2d. The price and condition of the grain market. If grain is low cattle will be retained to consume it; they will be kept over.

"3d. An expanded cheap currency induces large outlay in, and increase of the stock of cattle, in this way sometimes affecting the hide market for several seasons.

"4th. The opening of new territory and the increase of wealth in the far West is now, and has been for twenty years, absorbing a large amount of cattle."

The hints thrown out by this correspondent are important, and deserve the attention of the trade.

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#### THE INDIGO TRADE.

The following is condensed from an article in the *London Shipping Gazette*:

In all calculations respecting future value, it is necessary that the total produce should be fully considered. The growth of indigo in India, arising from the long-pending differences between the landholders and ryots, may exhibit a comparative deficiency; but the question for both importers and consumers to consider is—will the arrivals equal the demand?

The moderate production of indigo in India, combined, together with the late upward movement in the currencies, has led to the publication of certain statements at Calcutta calculated to mislead operators in England. Not that there is any commercial reason why indigo should become lower in price, but it is evident that reckless speculators have advanced statements unsupported by facts. Our readers, perhaps, recollect the great difficulties attending cultivation and production last year, and were prepared for a considerable falling off in the importations of Bengal qualities; but the result was of a very different character. Although indigo fell in price at one time, the imports of shipments from Calcutta were about 2,000 chests in excess of 1860. As, however, the consumption was nearly equal to the arrivals, the increased supply was not felt as a kind of dead weight upon the market. In order to show more clearly the position of the trade during the past ten years, as regards Calcutta shipments, we insert the annexed statistics of imports and deliveries into London:

|              | Imports. | Deliveries. |              | Imports. | Deliveries. |
|--------------|----------|-------------|--------------|----------|-------------|
| 1852..chests | 23,479   | 26,913      | 1857..chests | 13,639   | 16,349      |
| 1853 .....   | 14,979   | 20,405      | 1858.....    | 16,039   | 15,555      |
| 1854.....    | 17,904   | 19,302      | 1859.....    | 12,419   | 15,839      |
| 1855.....    | 17,250   | 21,318      | 1860.....    | 17,619   | 16,641      |
| 1856.....    | 20,191   | 17,942      | 1861.....    | 19,593   | 19,528      |

These figures show that in the past ten years London dealers imported 173,112, and delivered 189,792 chests; consequently the deliveries, mostly accumulations in London warehouses, exceeded the arrivals by 16,680 chests. This is certainly a favorable report to make; but it proves, beyond a doubt, that more indigo was produced in the East last year than in 1860, notwithstanding the assertions that the quantity of land in cultivation was very small.

If we trace the trade this year—which opened well for importers and holders of stock—we shall find a falling off in the deliveries, arising, no doubt, from the high rates now prevailing, and an increase in the arrivals and consumption. In round numbers London has imported 4,500 chests East India, against 1,750 chests in the same time in 1861. The deliveries have fallen short of last season by about 400 chests, and the stock has increased from 10,700 to 12,600 chests. Nearly the same figures, as regards supplies, stocks, &c., apply to Spanish qualities; and yet our correspondents at Calcutta write us to the effect, that it is thought there is ample room for a further rise in the quotations of 20, 25, and even 30 per cent. France and Russia have forwarded large orders to Calcutta; but it appears that from the 8th of January to the 3d ult., the quantity shipped to the latter country was only 1,200 chests, against 2,500 last year. The exports to Germany comprised only 557 chests, whilst in 1861 they rather exceeded 1,200 chests. America, however, appears to have operated more fully—the quantity forwarded being 603 chests, against 425 chests. France has taken 4,500 chests, or 1,700 less than in the previous season. There is only one inference to be drawn from these figures viz., that hitherto London dealers have purchased a full average quantity of Bengal indigo, and that, consequently, future imports will be equal to their necessities. But, even if those necessities are well met, both Russia and France, considering the very moderate quantities they have purchased at Calcutta, may become larger buyers in the London market, and, in this



way, any accumulation of stock may be prevented, and firmness may be imparted to even the present high currencies. As we are not of opinion that much higher rates will prevail in this country as the year progresses, it is but just that we should insert the calculations made at Calcutta in reference to supply :

## STOCKS, SHIPMENTS, &amp;C.

|                                                                            | 1862.  | 1861.  |
|----------------------------------------------------------------------------|--------|--------|
| Stock at the beginning of the May sales... chests                          | 15,433 | 12,108 |
| Shipments to arrive for the July sales from Calcutta.                      | 4,077  | 9,030  |
| (Average 1854-61.) Madras and Pondicherry....                              | 1,915  | 2,052  |
|                                                                            | <hr/>  | <hr/>  |
|                                                                            | 21,425 | 23,190 |
| Deliveries between May and July, 1858.....                                 | 4,459  | 3,168  |
|                                                                            | <hr/>  | <hr/>  |
| Stock for the July sales.....                                              | 16,966 | 20,022 |
| Probable shipments to arrive before the end of<br>1862, from Calcutta..... | 3,293  | 7,499  |
| From Calcutta, Madras, and Pondicherry.....                                | 2,465  | 3,002  |
|                                                                            | <hr/>  | <hr/>  |
|                                                                            | 22,724 | 30,523 |
| Deliveries to end of December, 1858.....                                   | 13,983 | 17,690 |
|                                                                            | <hr/>  | <hr/>  |
| Leaves stock December 31.....                                              | 8,741  | 12,833 |

As regards the stock for the May sales, these figures appear to be tolerably correct, but our impression is, because it is admitted that, last year, the total available crop, including old stocks, was 67,430 maunds, the statement, or rather estimate, for the July sales is far too low, certainly by from 2,000 to 2,500 chests. Again, the probable shipments to the end of the year are certainly placed at too moderate a limit; consequently, we may anticipate a larger stock on hand at the close of the year than 8,741 chests. If other nations were buying largely in the Indian market, we could easily understand that a portion of our usual importations would be cut off; but when we find a positive deficiency in the shipments to various quarters, it is difficult to understand upon what principle we can safely contend for higher quotations. In 1857-58 America took direct 806 chests; in 1858-59 the quantity was 1,868; in 1859-60, 1,526; but in 1860-61 it declined to 730 chests. There can be no doubt but that the production of the indigo plant in Bengal has been greatly checked since the commencement of 1861; still, we see nothing in the advices since the beginning of the present year to warrant the belief that the total production will be from 10,000 to 12,000 chests less than the usual average, more especially as the sowings have progressed satisfactorily, and as an abundance of rain has fallen in most of the indigo districts.

Whilst several branches of trade in the United Kingdom have suffered severely, it is satisfactory to find the indigo market comparatively healthy. Unquestionably the production in the East of late years has not kept pace with the consumption, and even additional supplies from other sources are not likely to fill up the vacuum caused by dissensions in India between the cultivators and the owners of land. The differences now

chiefly consist of a desire on the part of the latter to obtain a larger revenue from the soil than it will yield; hence, we find that in Bengal alone, a number of persons have been dispossessed of land hitherto held by them as yearly tenants for a considerable period. We are aware that the produce of the East is selling at high prices in this country; but if the cultivators are to be driven from the soil because they refuse to pay higher rents, we shall unquestionably lose the benefit which usually results from moderate patches of land being divided for individual exertion. The experiment has been often tried, and as often failed, in England, and we regret to find that the landowners in the East should endeavor to realize larger incomes from a system of extensive cultivation on their own account. India has passed through a period of depression and excitement, from which she is now rapidly recovering; but a falling off in the quantity of produce raised may lead to further complications of an unfavorable character. As regards the supply of indigo, however, this season, we have every reason to anticipate a full average quantity. To secure its early arrival here, some shippers are negotiating for the transmission of the article via the Red Sea. The additional cost by that route will be 3d. per pound, but it is supposed that it will be nearly made up by a gain in interest and a decrease in risk. That the value of indigo is likely to rule firm during the remainder of the year, is evident from the general bearings of the trade, and the steady consumption both here and on the Continent; but we cannot subscribe to the opinion that the quotations are likely to be much above their present level.

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#### HUNGARIAN WINES.

A report on Hungarian wines by Mr. DUNLOP, attaché to the British Embassy, has just been included among some papers presented to Parliament. On the question whether wines from Hungary can be imported into England at a cheaper rate than wines from France it throws some interesting light. As to the capability of the country for producing almost any quantity there seems no doubt; but the absence of care, method, and discrimination is still such as seriously to counteract the existing natural advantages. The Hungarian farmers and proprietors, however, it is said, are now awakening to the fact that, although they have about the largest and best district in Europe for wine growing, and unlimited quantities of nearly the best grapes for the purpose, they continue to make, on the whole, very bad wines for exportation—far inferior in quality and flavor to those which, with ordinary modern appliances, might be manufactured throughout the country, and much smaller in quantity than their extensive vine-farms could easily produce. The Hungarians, it appears, thoroughly understand the culture and management of the grape previously to the vintage, but their whole subsequent system is “careless, wasteful, rude, and defective.” The formation of a wine association has been suggested to correct these evils, but the remedy seems open to each individual, since the introduction of proper methods would involve but little expense in new machinery. The estimates of the annual quantity of wine produced in Hungary are rather vague. Mr. DUNLOP thinks it may amount to 390,000,000 English gallons, which, after allowing for the home consumption, would leave about 100,000,000 for exportation.

Of this, about two-thirds are white and one-third is red, and Mr. DUNLOP considers it is "no exaggeration to state, that if Hungary once saw a clear way open for the export of her wine, she would make planting arrangements to supply any demand within the bounds of probability from foreign markets, and would equally increase her care and attention as to the qualities required." Railway facilities would also be essential, and it is believed that if a line which was planned many years ago from Pesth to Fiume, and which was rejected by the Vienna authorities, because it did not harmonise with their "strategic absurdities," had been carried out, the present exports of Hungary would have been double what they are, and the export of wine much more than double. The impression is, that if there were a direct communication between Hungary and Great Britain *via* the Adriatic, "the people of England would be able to have an imperial pint of good Hungarian wine at from 4d. to 7d. sterling." Mr. DUNLOP considers that the time has arrived when English merchants and capitalists should direct special attention to the capabilities of this trade. Hitherto the Hungarians have devoted too much care to the production of "curious" and liqueur descriptions, but to develop the real powers of the country, they should, it is contended, devote all their energies to the culture and improvement of their strong, dry, clean wines, and study by all means to fit them for the foreign market, by carefully assorting their grapes, and by manipulating the wines at home as the Spaniards do their sherries. If the English middle and lower classes do not take to the light acid French wines, they would certainly, it is observed, become large consumers of the dry, strong-bodied, clean Hungarian wines, especially white wines, and these could be supplied to them cheaper than sherries from Cadiz. The strong red wine, resembling Burgundy, which might also be largely made in Hungary, would, it is added, perfectly suit the English market.

#### THE LUMBER TRADE OF CANADA.

The following table, given by GEORGE H. POOXY, Esq., in a lecture delivered by him at Ottawa, March 18, 1862, shows the quantity of lumber and deals exported from Quebec to the United Kingdom for fifteen years :

|           | Sq. timber, c. ft. | Deals.     | Total.     |
|-----------|--------------------|------------|------------|
| 1845..... | 24,223,000         | 6,879,617  | 31,102,617 |
| 1846..... | 24,242,689         | 5,655,986  | 29,898,675 |
| 1847..... | 19,060,880         | 7,112,963  | 26,173,843 |
| 1848..... | 17,402,360         | 6,514,083  | 23,916,443 |
| 1849..... | 18,581,560         | 6,648,746  | 25,230,306 |
| 1850..... | 19,534,320         | 6,465,623  | 25,999,943 |
| 1851..... | 22,210,080         | 4,507,133  | 26,717,213 |
| 1852..... | 20,361,960         | 4,600,534  | 24,961,894 |
| 1853..... | 22,129,120         | 7,054,838  | 29,183,958 |
| 1854..... | 25,346,800         | 7,966,958  | 33,313,758 |
| 1855..... | 15,389,774         | 5,512,500  | 20,702,274 |
| 1856..... | 19,409,152         | 7,431,790  | 26,740,042 |
| 1857..... | 24,995,750         | 10,521,041 | 35,516,801 |
| 1858..... | 17,571,240         | 10,160,475 | 27,731,715 |
| 1859..... | 19,115,360         | 9,291,594  | 28,406,954 |

The average quantity produced is about 30,000,000 cubic feet square timber, and 400,000,000 feet board measure, equal 34,000,000 cubic feet sawn lumber, altogether 64,000,000 cubic feet per annum. The duties levied in Canada on square timber cut on crown lands, is  $\frac{1}{2}$ d. per cubic foot, and on saw logs 5d. currency per log, without reference to size. No duty is imposed on timber cut on *private lands*.

In the year 1845 the export from Quebec formed 32 per cent of the imports to the United Kingdom; in 1846, 29 per cent; 1847, 28 per cent; 1849, 31 per cent; 1851, 25 per cent; 1852, 24 per cent; 1854, 27 per cent; 1855, 22 per cent; 1856, 22 per cent; 1857, 28 per cent; 1858, 25 per cent; 1859, 21 per cent. This falling off of 11 per cent on the whole trade is due to the increase of importation from the Baltic, consequent on the withdrawal of a protective duty.

The whole imports of the United Kingdom, in the year 1859, were, as computed from the Board of Trade tables, 1,300,000 loads of 50 cubic feet each, of colonial; and 1,300,000 loads of foreign timber, making a total of 130,000,000 cubic feet, of which Canada furnishes about 24 per cent; the tonnage would be probably equal to 3,000,000 tons, of which we furnish probably 750,000; of this, fully 600,000 tons are the produce of the Ottawa country, and the trade there is carried on more extensively than in any part of the British Empire.

According to the best possible estimate, this trade employs 15,000 men in the woods; and counting those engaged in the various operations of the manufacturing establishments, 10,000 more, so that a total of 25,000 men are engaged in this traffic, on the Ottawa River. The yearly consumption of provisions, by the producers of square timber, is stated to be 12,000 barrels of pork, 15,000 barrels of flour, some 100 tons of sundries, 6,000 tons of hay, and 275,000 bushels of oats; and the same quantity of provisions is required for the production of saw logs; so that something like 26,000 tons of agricultural produce is required for the purposes of this trade.

The trade returns for 1859 give the amount of seamen required to man the fleet which takes the lumber destined for European markets from Quebec, at 17,064; to those must be added the men engaged on our inland navigation, in transporting same lumber to the States, and the total number of seamen employed will not fall far short of 25,000 men.

The revenue collected the past eleven years from the lumber trade is as follows:

|           | Slide dues. | Ground rent. | Saw logs. | Revenue collected on the Ottawa. |
|-----------|-------------|--------------|-----------|----------------------------------|
| 1851..... | \$23,554    | \$7,060      | \$8,070   | \$110,998                        |
| 1852..... | 29,912      | 10,969       | 13,725    | 143,351                          |
| 1853..... | 28,844      | 14,544       | 18,833    | 148,090                          |
| 1854..... | 28,888      | 19,686       | 26,403    | 184,718                          |
| 1855..... | 28,450      | 22,215       | 19,143    | 150,368                          |
| 1856..... | 32,269      | 24,414       | 19,221    | 167,313                          |
| 1857..... | 35,934      | 21,113       | 23,278    | 197,514                          |
| 1858..... | 27,936      | 22,119       | 21,162    | 156,800                          |
| 1859..... | 33,724      | 19,667       | 34,007    | 182,850                          |
| 1860..... | 44,417      | 22,904       | 44,147    | 203,540                          |
| 1861..... | 49,660      | 19,008       | 42,474    | 219,533                          |

## THE SUPPLY OF COTTON.

In a circular just issued by Messrs. NEILL BROTHERS, of Manchester, the downward progress of the stocks of American cotton since the highest point of last year, is illustrated roughly by the following quarterly table, to which is appended the Liverpool quotation for middling New Orleans cotton at the respective dates :

|                              | 1861.     |           |         |         | 1862.   |         |
|------------------------------|-----------|-----------|---------|---------|---------|---------|
|                              | March.    | June.     | Sept.   | Dec.    | March.  | May.    |
| In American ports.....       | 750,000   | 100,000   | 50,000  | 30,000  | 30,000  | 20,000  |
| Afloat and at Liverpool..... | 918,000   | 971,000   | 487,000 | 240,000 | 160,000 | 108,000 |
| Total.....                   | 1,668,000 | 1,071,000 | 537,000 | 270,000 | 190,000 | 128,000 |
| Price of middling.....       | 7½d.      | 8d.       | 9½d.    | 11d.    | 12½d.   | 12½d.   |

There is, moreover as large a decrease proportionately in the stocks held in the continental ports and by spinners everywhere. The vacuum caused by the non-receipt of the last crop is thus at last showing itself seriously, in spite of the great reduction in consumption, which has occurred here and elsewhere. At Havre the present stock is 42,000 bales, against 290,000 last year. "For so far it is to be regretted," observed Messrs. NEILL, "that the high scale of prices which has prevailed this season has failed to attract an increase of supplies from other quarters. India seems to have been cleared out by the large shipments of last year, and the shipments to Europe from 1st January till latest dates show a decrease of 100,000 bales, the figures being 251,000 bales against 351,000 last year. Hence, and from the large proportionate consumption of Surat cotton, the stock at Liverpool of this description, which on the 1st of January last stood at 295,000 bales against 120,000 last year, is now reduced to 170,000 against 133,000 last year, while in the quantity afloat the figures are still more unfavorable—namely, 164,000 bales against 258,000. From Egypt, Brazil, etc., there is a large per centage of increase in the import for so far this year, but the positive increase is not sufficient to be seriously felt in the trade. The figures are 159,000 bales against 97,000 last year. In looking to the future, it would be vain to attempt predictions of the course of prices. In the present state of stocks, any considerable demand, such as the indications from the Indian and other markets would seem to point to, might seriously force up prices. On the other hand, further Federal successes, such as there is every reason to anticipate, or the arrival of even a very few bales of cotton from the South, would, with equal certainty, at least temporarily depress them. Upon a broad view, however, of the enormous difficulties which stand in the way of any satisfactory reopening of the American sources of supply, and the long delays which must occur before the complicated machinery of the trade is again readjusted, even if terms of peace were already agreed upon, the present price of cotton cannot be considered unreasonably high."





## JOURNAL OF BANKING, CURRENCY, AND FINANCE.

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1. CITY WEEKLY BANK RETURNS, NEW YORK CITY BANKS, PHILADELPHIA BANKS, BOSTON BANKS, PROVIDENCE BANKS. 2. WEEKLY STATEMENT BANK OF ENGLAND. 3. STATE BANK OF IOWA. 4. WISCONSIN BANKS. 5. OHIO BANKS. 6. THE DEBT OF EUROPEAN NATIONS.

### CITY WEEKLY BANK RETURNS.

NEW YORK BANKS. (*Capital, Jan., 1862, \$69,493,577; Jan., 1861, \$69,890,475.*)

| Date.            | Loans.        | Specie.      | Circulation. | Net Deposits. | Weekly Clearings. |
|------------------|---------------|--------------|--------------|---------------|-------------------|
| January 4,.....  | \$154,415,826 | \$23,983,878 | \$8,586,186  | \$111,789,233 | \$100,642,429     |
| " 11,.....       | 152,088,012   | 25,373,070   | 8,121,512    | 113,889,762   | 105,634,811       |
| " 18,.....       | 149,081,433   | 26,120,859   | 7,369,028    | 113,327,160   | 107,732,780       |
| " 25,....        | 145,767,680   | 26,698,728   | 6,828,017    | 110,874,786   | 100,001,959       |
| February 1,..... | 144,675,778   | 27,479,583   | 6,404,951    | 112,057,003   | 93,791,629        |
| " 8,.....        | 143,803,890   | 28,196,666   | 6,077,417    | 110,637,557   | 113,216,297       |
| " 15,.....       | 141,994,192   | 28,114,148   | 5,762,506    | 110,430,475   | 105,102,177       |
| " 22,.....       | 139,950,958   | 28,875,992   | 5,489,496    | 109,079,076   | 111,346,066       |
| March 1,.....    | 137,674,238   | 29,826,959   | 5,363,944    | 107,974,499   | 109,854,823       |
| " 8,.....        | 133,055,148   | 30,436,644   | 5,869,206    | 103,715,728   | 113,512,576       |
| " 15,.....       | 130,622,776   | 30,773,050   | 5,904,866    | 100,296,704   | 118,957,978       |
| " 22,.....       | 127,615,306   | 32,023,390   | 6,260,309    | 97,601,279    | 115,376,381       |
| " 29,.....       | 125,021,630   | 32,841,802   | 6,758,313    | 94,428,071    | 106,973,432       |
| April 5,.....    | 124,477,484   | 33,764,382   | 7,699,641    | 94,082,625    | 111,336,384       |
| " 12,.....       | 123,412,491   | 34,594,668   | 8,004,843    | 93,759,063    | 114,738,013       |
| " 19,.....       | 123,070,263   | 34,671,528   | 8,064,663    | 95,179,340    | 113,529,377       |
| " 26,.....       | 125,086,825   | 35,297,944   | 8,118,571    | 101,897,435   | 124,396,733       |
| May 3,.....      | 133,406,418   | 35,175,828   | 8,482,732    | 109,634,535   | 140,952,471       |
| " 10,.....       | 138,948,211   | 32,239,868   | 8,830,321    | 115,559,206   | 131,113,537       |
| " 17,.....       | 142,290,782   | 30,280,697   | 8,727,328    | 120,003,929   | 167,390,055       |
| " 24,.....       | 142,950,149   | 30,672,760   | 8,592,676    | 122,602,864   | 142,828,565       |
| " 31,.....       | 142,671,414   | 31,397,284   | 8,535,149    | 125,434,755   | 136,893,373       |
| June 7,.....     | 142,318,381   | 31,248,882   | 8,813,603    | 125,566,961   | 148,123,103       |
| " 14,.....       | 144,014,350   | 31,162,048   | 8,314,327    | 125,643,275   | 165,521,454       |
| " 21,.....       | 146,839,762   | 31,047,925   | 8,643,183    | 126,684,422   | 168,059,997       |

PHILADELPHIA BANKS. (*Capital, Jan., 1862, \$11,970,130.*)

| Date.      | Loans.       | Specie.     | Circulation. | Deposits.    | Due to banks. | Due from banks. |
|------------|--------------|-------------|--------------|--------------|---------------|-----------------|
| Jan. 6,... | \$31,046,537 | \$5,688,728 | \$2,145,219  | \$21,396,014 | \$3,645,956   | \$1,796,305     |
| " 13,...   | 31,145,938   | 5,692,123   | 2,162,152    | 21,324,510   | 3,992,952     | 1,702,716       |
| " 20,...   | 30,601,160   | 5,733,450   | 2,120,756    | 20,698,496   | 4,120,261     | 1,575,116       |
| " 27,...   | 30,385,606   | 5,821,323   | 2,121,146    | 20,058,098   | 4,209,006     | 1,858,688       |
| Feb. 3,... | 30,385,319   | 5,884,011   | 2,144,398    | 20,068,890   | 4,572,872     | 1,707,136       |
| " 10,...   | 29,974,700   | 5,923,874   | 2,191,547    | 19,032,535   | 4,890,288     | 1,587,481       |
| " 17,...   | 29,388,544   | 5,849,354   | 2,191,512    | 18,692,182   | 4,661,442     | 2,052,031       |
| " 24,...   | 29,280,049   | 5,867,686   | 2,230,605    | 18,777,300   | 5,205,203     | 1,935,414       |
| Mar. 3,... | 29,393,356   | 5,881,108   | 2,343,493    | 18,541,190   | 5,218,333     | 1,828,333       |
| " 10,...   | 28,033,499   | 5,869,730   | 2,575,503    | 17,375,771   | 5,131,834     | 1,733,169       |
| " 17,...   | 28,723,835   | 5,897,891   | 2,632,627    | 17,253,461   | 5,342,876     | 1,649,137       |

| Date.       | Loans.     | Specie.   | Circulation. | Deposits.  | Due to banks. | Due from banks. |
|-------------|------------|-----------|--------------|------------|---------------|-----------------|
| " 24,...    | 28,350,615 | 5,915,535 | 2,707,804    | 17,066,267 | 5,210,365     | 1,774,162       |
| " 31,...    | 27,831,333 | 5,884,314 | 2,904,542    | 17,024,198 | 5,100,186     | 2,134,392       |
| April 7,... | 28,037,691 | 5,886,424 | 3,378,970    | 16,636,538 | 5,607,488     | 2,231,889       |
| " 14,...    | 28,076,717 | 5,912,870 | 3,496,420    | 18,112,446 | 4,868,842     | 2,634,171       |
| " 21,...    | 28,246,733 | 6,046,260 | 3,525,400    | 19,011,833 | 4,548,327     | 2,504,147       |
| " 28,...    | 28,793,116 | 6,052,827 | 3,613,994    | 20,223,556 | 4,470,674     | 3,128,069       |
| May 5,...   | 29,524,432 | 6,049,685 | 3,759,692    | 21,316,614 | 4,531,837     | 3,823,659       |
| " 12,...    | 29,966,347 | 5,728,028 | 3,867,200    | 23,002,263 | 5,118,541     | 4,981,291       |
| " 19,...    | 31,121,563 | 5,529,221 | 4,045,696    | 23,385,009 | 5,597,984     | 4,804,956       |
| " 26,...    | 31,533,603 | 5,587,012 | 4,186,055    | 23,973,478 | 5,472,615     | 5,120,902       |
| June 2,...  | 31,747,070 | 5,583,482 | 4,335,013    | 24,884,644 | 5,373,322     | 5,372,748       |
| " 9,...     | 31,951,715 | 5,632,307 | 4,354,599    | 24,973,011 | 5,161,280     | 5,355,034       |
| " 16,...    | 32,132,654 | 5,630,503 | 4,298,023    | 24,807,057 | 5,036,828     | 5,396,328       |

## BOSTON BANKS. (Capital, Jan., 1862, \$38,231,700; Jan., 1861, \$38,231,700.)

| Date.      | Loans.       | Specie.     | Circulation. | Deposits.    | Due to banks. | Due from banks. |
|------------|--------------|-------------|--------------|--------------|---------------|-----------------|
| Jan. 6,... | \$65,612,997 | \$8,920,486 | \$6,451,587  | \$27,093,839 | \$9,187,924   | \$8,701,873     |
| " 13,...   | 64,704,039   | 8,580,607   | 6,612,512    | 25,642,994   | 9,634,227     | 8,805,255       |
| " 20,...   | 64,409,585   | 8,585,277   | 6,549,871    | 25,441,327   | 9,547,319     | 9,018,388       |
| " 27,...   | 63,025,191   | 8,562,175   | 6,284,268    | 24,030,776   | 9,593,545     | 8,727,348       |
| Feb 3,...  | 62,628,793   | 8,529,483   | 6,260,299    | 23,500,321   | 9,727,783     | 8,766,415       |
| " 10,...   | 62,340,600   | 8,514,600   | 6,616,000    | 22,784,700   | 9,392,600     | 8,965,500       |
| " 17,...   | 62,587,788   | 8,410,890   | 6,469,309    | 22,034,794   | 9,653,725     | 8,315,887       |
| " 24,...   | 62,053,640   | 8,341,588   | 6,580,205    | 21,515,228   | 9,625,869     | 8,644,360       |
| Mar. 3,... | 61,678,500   | 8,364,500   | 6,318,700    | 21,208,500   | 9,681,500     | 8,982,600       |
| " 10,...   | 61,834,500   | 8,409,535   | 6,693,139    | 20,740,208   | 9,906,110     | 8,450,721       |
| " 17,...   | 61,747,000   | 8,471,000   | 6,364,800    | 20,554,000   | 9,790,000     | 7,931,000       |
| " 24,...   | 61,655,420   | 8,441,058   | 6,219,512    | 20,326,087   | 9,715,256     | 7,669,531       |
| " 31,...   | 61,360,789   | 8,441,196   | 5,908,272    | 19,975,018   | 9,434,782     | 6,978,527       |
| Apr. 7,... | 61,208,974   | 8,674,170   | 6,557,152    | 21,014,000   | 9,245,088     | 8,133,124       |
| " 14,...   | 61,058,969   | 8,688,573   | 6,170,383    | 21,009,010   | 8,949,259     | 7,173,374       |
| " 21,...   | 61,019,787   | 8,679,356   | 5,924,906    | 21,570,017   | 8,529,277     | 6,946,164       |
| " 28,...   | 60,441,452   | 8,666,797   | 5,500,396    | 22,402,134   | 8,493,004     | 7,813,530       |
| May 5,...  | 59,805,545   | 8,593,990   | 5,453,815    | 23,823,199   | 8,655,206     | 9,898,508       |
| " 12,...   | 59,521,251   | 8,422,738   | 5,537,937    | 24,827,121   | 9,197,744     | 11,755,589      |
| " 19,...   | 60,059,635   | 8,304,534   | 5,602,844    | 25,792,916   | 9,614,737     | 13,105,350      |
| " 26,...   | 60,266,275   | 8,108,695   | 5,503,756    | 26,264,656   | 10,029,193    | 13,956,636      |
| June 2,... | 60,677,367   | 8,089,723   | 5,348,133    | 26,730,486   | 10,226,491    | 13,924,896      |
| " 9,...    | 62,059,143   | 7,983,125   | 5,696,413    | 26,277,021   | 10,610,702    | 12,888,043      |
| " 16,...   | 62,591,341   | 7,891,339   | 5,375,612    | 25,602,043   | 10,662,170    | 11,884,692      |

## PROVIDENCE BANKS. (Capital, Jan., 1862, \$15,454,600.)

| Date.        | Loans.       | Specie.   | Circulation. | Deposits.   | Due to banks. | Due from banks. |
|--------------|--------------|-----------|--------------|-------------|---------------|-----------------|
| Jan. 11,.... | \$19,356,800 | \$408,700 | \$1,883,600  | \$3,054,600 | \$1,099,800   | \$915,400       |
| " 18,....    | 19,238,700   | 402,900   | 1,890,300    | 2,899,200   | 1,071,500     | 893,500         |
| " 25,....    | 19,160,600   | 394,700   | 1,756,500    | 2,899,600   | 959,400       | 1,057,400       |
| Feb. 1,....  | 19,160,600   | 394,700   | 1,811,100    | 2,950,500   | 871,800       | 925,500         |
| " 8,....     | 19,087,700   | 395,900   | 1,814,300    | 2,915,200   | 900,400       | 934,700         |
| " 15,....    | 19,109,400   | 394,800   | 1,784,000    | 2,762,200   | 911,100       | 1,081,000       |
| " 22,....    | 18,869,800   | 396,800   | 1,879,100    | 2,792,700   | 893,900       | 1,180,000       |
| Mar. 1,....  | 18,920,500   | 407,500   | 1,791,200    | 2,924,400   | 953,900       | 1,283,000       |
| " 8,....     | 18,953,900   | 405,100   | 1,973,500    | 3,030,600   | 1,131,500     | 1,598,800       |
| " 15,....    | 18,998,600   | 408,500   | 1,848,100    | 2,946,800   | 1,103,200     | 1,484,300       |
| " 22,....    | 19,148,400   | 408,300   | 1,879,200    | 3,060,900   | 1,085,000     | 1,407,700       |
| " 29,....    | 19,360,500   | 411,300   | 1,857,100    | 3,078,800   | 1,021,000     | 1,165,400       |

| Date.           | Loans.     | Specie. | Circulation. | Deposits. | Due to banks. | Due from banks. |
|-----------------|------------|---------|--------------|-----------|---------------|-----------------|
| Apr. 5, . . . . | 19,641,000 | 417,500 | 2,102,000    | 3,124,000 | 1,115,500     | 1,063,200       |
| " 12, . . . .   | 19,719,200 | 416,600 | 2,036,300    | 3,017,700 | 1,081,000     | 894,800         |
| " 19, . . . .   | 19,644,500 | 408,600 | 1,953,400    | 3,015,900 | 1,020,400     | 845,400         |
| " 26, . . . .   | 19,620,300 | 413,700 | 1,877,200    | 3,123,500 | 948,400       | 961,200         |
| May 3, . . . .  | 19,538,410 | 417,378 | 1,979,828    | 3,134,601 | 950,430       | 1,156,072       |
| " 10, . . . .   | 19,070,200 | 410,300 | 1,969,400    | 3,164,700 | 1,132,500     | 1,714,400       |
| June 7, . . . . | 19,236,100 | 395,600 | 2,016,600    | 3,342,400 | 1,653,000     | 2,101,900       |
| " 14, . . . .   | 19,641,600 | 388,500 | 2,182,700    | 3,274,600 | 1,666,500     | 1,818,200       |
| " 21, . . . .   | 19,827,500 | 385,500 | 2,324,900    | 3,153,600 | 1,627,500     | 1,744,400       |

## BANK OF ENGLAND.

## WEEKLY STATEMENT.

| Date.           | Circulation. | Public Deposits. | Private Deposits. | Securities. | Coin and Bullion. | Rate of Discount. |
|-----------------|--------------|------------------|-------------------|-------------|-------------------|-------------------|
| Jan. 1 . . . .  | £20,818,190  | £7,345,833       | £15,036,062       | £30,419,730 | £15,961,439       | 3 pr. ct.         |
| " 8 . . . .     | 21,086,675   | 4,542,974        | 18,206,488        | 31,022,505  | 16,046,017        | 2½ "              |
| " 15 . . . .    | 21,460,925   | 4,583,353        | 16,480,452        | 29,509,884  | 16,291,626        | 2½ "              |
| " 22 . . . .    | 21,697,928   | 5,467,340        | 15,366,081        | 29,464,720  | 16,35,939         | 2½ "              |
| " 29 . . . .    | 21,183,376   | 5,753,063        | 14,751,486        | 28,696,456  | 16,280,369        | 2½ "              |
| Feb. 5 . . . .  | 21,427,554   | 5,788,441        | 14,179,917        | 28,894,352  | 15,956,903        | 2½ "              |
| " 12 . . . .    | 21,236,312   | 4,884,989        | 15,526,334        | 29,010,241  | 16,042,949        | 2½ "              |
| " 19 . . . .    | 20,772,726   | 5,397,144        | 15,085,843        | 28,771,812  | 15,894,405        | 2½ "              |
| " 26 . . . .    | 20,736,715   | 5,762,849        | 14,939,742        | 29,024,962  | 15,749,065        | 2½ "              |
| Mar. 5 . . . .  | 21,217,246   | 6,755,287        | 13,737,507        | 29,692,441  | 15,673,893        | 2½ pr. ct.        |
| " 12 . . . .    | 20,013,685   | 7,527,911        | 13,763,718        | 29,489,795  | 16,027,111        | 2½ "              |
| " 19 . . . .    | 20,483,509   | 8,011,694        | 13,340,928        | 28,953,089  | 16,543,586        | 2½ "              |
| " 26 . . . .    | 20,814,655   | 8,413,275        | 13,154,258        | 29,140,207  | 16,812,798        | 2½ "              |
| April 2 . . . . | 21,501,595   | 8,456,468        | 13,622,532        | 30,398,790  | 16,849,198        | 2½ "              |
| " 9 . . . .     | 21,822,105   | 5,625,314        | 16,336,169        | 29,981,793  | 16,881,940        | 2½ "              |
| " 16 . . . .    | 22,048,463   | 5,225,132        | 15,710,260        | 29,325,888  | 16,743,434        | 2½ "              |
| " 23 . . . .    | 21,655,558   | 5,534,973        | 15,915,247        | 29,022,128  | 17,172,204        | 2½ "              |
| " 30 . . . .    | 21,946,997   | 6,867,375        | 14,357,007        | 29,164,075  | 17,089,446        | 2½ "              |
| May 7 . . . .   | 21,752,884   | 7,503,991        | 13,866,643        | 28,961,214  | 17,265,745        | 2½ "              |
| " 14 . . . .    | 21,618,780   | 6,304,683        | 14,918,308        | 29,076,079  | 16,919,147        | 2½ "              |
| " 21 . . . .    | 21,539,430   | 6,557,811        | 14,567,671        | 29,433,044  | 16,344,940        | 3 "               |
| " 28 . . . .    | 21,265,561   | 6,937,808        | 14,685,087        | 29,824,704  | 16,178,815        | 3 "               |
| June 4 . . . .  | 21,515,263   | 7,518,007        | 13,188,186        | 29,841,864  | 15,489,723        | 3 "               |
| " 11 . . . .    | 21,329,641   | 8,825,516        | 13,156,662        | 31,396,492  | 15,036,100        | 3 "               |

## STATE BANK OF IOWA.

The State Bank of Iowa has just published its consolidated statement for the quarter ending May 10, 1862. The statement shows that the branches are in a healthy and thriving condition. We copy the figures:

| ASSETS.                        |              | LIABILITIES.          |              |
|--------------------------------|--------------|-----------------------|--------------|
| Safety fund . . . . .          | \$213,258 92 | Capital . . . . .     | \$720,245 00 |
| Specie . . . . .               | 729,962 85   | Circulation . . . . . | 926,901 00   |
| Notes of other banks . . . . . | 277,513 00   | Due other banks and   |              |
| Due from other banks . . . . . | 253,334 21   | bankers . . . . .     | 27,571 02    |
| Loans and discounts . . . . .  | 1,158,135 76 | Deposits . . . . .    | 953,026 36   |
| Other items . . . . .          | 104,680 64   | Other items . . . . . | 99,742 00    |

This is certainly a very safe and conservative statement.

## WISCONSIN BANKS.

The following extracts are taken from the report of W. M. H. RAMSEY, Bank Controller, dated May 31 :

## BANKS WINDING UP, AND REDEEMED IN GOLD AT PAR AT THE BANK CONTROLLER'S OFFICE.

|                                     | Time of redemption expires. |
|-------------------------------------|-----------------------------|
| Bank of the Capitol.....            | Protested                   |
| Bank of La Pointe.....              | April 19, '63               |
| Bank of Montello.....               | Protested                   |
| Brown County Bank.....              | Feb'y 22, '63               |
| City Bank of Racine.....            | Dec. 1, '62                 |
| Fox River Bank.....                 | June 26, '63                |
| Germania Bank.....                  | Protested                   |
| Janesville City Bank.....           | Protested                   |
| Kokomo Bank.....                    | Protested                   |
| Marine Bank.....                    | April 18, '63               |
| Merchants' Bank.....                | April 22, '64               |
| Merchants' and Mechanics' Bank..... | Protested                   |
| Northern Wisconsin Bank.....        | July 22, '62                |
| Oshkosh City Bank.....              | Protested                   |
| Second Ward Bank.....               | Not advertised              |
| Union Bank.....                     | Not advertised              |

The time of redemption of the following banks has expired, but the controller will continue to redeem the circulation until the withdrawal of the securities, which may at any time be done :

|                              | Time expired. |
|------------------------------|---------------|
| Farmers' Bank of Hudson..... | May 6, 1862   |
| People's Bank.....           | May 12, 1862  |

## BANKS WINDING UP AND REDEEMED AS FOLLOWS :

|                            | Cents.           |                            | Cents.           |
|----------------------------|------------------|----------------------------|------------------|
| Bank of Albany.....        | 73 $\frac{3}{4}$ | Mercantile Bank.....       | 79 $\frac{1}{2}$ |
| Bank of Appleton.....      | 61 $\frac{3}{4}$ | Oconto County Bank.....    | 75               |
| Bank of Beaver Dam.....    | 57 $\frac{1}{2}$ | Osborn Bank.....           | 65               |
| Bank of Eau Claire.....    | 84               | Portage County Bank.....   | 70 $\frac{3}{4}$ |
| Bank of Fond du Lac.....   | 68 $\frac{3}{4}$ | Reedsburg Bank.....        | 75 $\frac{1}{2}$ |
| Bank of Portage.....       | 78               | Southern Bank.....         | 70 $\frac{1}{2}$ |
| Beloit Savings Bank.....   | 46 $\frac{1}{2}$ | Tradesmen's Bank.....      | 51               |
| Dodge County Bank.....     | 69               | Waupun Bank.....           | 80               |
| Hall & Brother's Bank..... | 63               | Wausara County Bank.....   | 73 $\frac{1}{2}$ |
| Koshkonog Bank.....        | 54 $\frac{3}{4}$ | Winnebago County Bank...   | 57               |
| Mechanics' Bank.....       | 62 $\frac{1}{4}$ | Wisconsin Valley Bank..... | 77               |

The bonds of the following States have been decreased since statement of April 30, 1862, as follows :

|                  |            |
|------------------|------------|
| Illinois 6s..... | \$3,750 00 |
| Ohio 6s.....     | 2,000 00   |
| Missouri 6s..... | 2,000 00   |
| Total.....       | \$7,750 00 |

Since statement of April 30, 1862, the following stocks have been increased :

|                       |             |
|-----------------------|-------------|
| United States 6s..... | \$3,000 00  |
| Wisconsin 6s.....     | 21,200 00   |
| Total.....            | \$24,200 00 |

The circulation has been increased during the last month..... \$21,483 00

The whole amount of circulation outstanding is :

|                        |                |
|------------------------|----------------|
| Par banks.....         | 1,738,352 00   |
| Discredited banks..... | 198,221 00     |
| Winding up banks.....  | 54,249 00      |
| Total.....             | \$1,990,822 00 |

Secured as follows :

|                      |              |                       |                |
|----------------------|--------------|-----------------------|----------------|
| United States 6s.... | \$47,000 00  | Kentucky 6s.....      | 6,000 00       |
| "    5s....          | 3,000 00     | Tennessee 6s.....     | 50,000 00      |
| "    12s....         | 1,000 00     | Missouri 6s.....      | 157,000 00     |
| "    7.30s....       | 2,000 00     | Virginia 6s.....      | 9,000 00       |
| New York 6s.....     | 3,000 00     | North Carolina 6s...  | 53,000 00      |
| Wisconsin 6s.....    | 1,056,900 00 | Georgia 7s.....       | 6,000 00       |
| Iowa 7s.....         | 18,000 00    | "    6s.....          | 500 00         |
| Minnesota 8s.....    | 71,000 00    | Louisiana 5s.....     | 1,000 00       |
| Illinois 6s.....     | 265,620 00   | "    6s.....          | 15,000 00      |
| Indiana 2½s.....     | 15,000 00    | Mil. & Wat. R. R. 8s. | 50,000 00      |
| "    5s.....         | 28,000 00    |                       |                |
| Michigan 6s.....     | 137,500 00   |                       | \$2,112,120 00 |
| "    7s.....         | 1,000 00     | Specie .....          | 92,088 59      |
| Ohio 6s.....         | 50,600 00    |                       |                |
| California 7s.....   | 65,000 00    | Total.....            | 2,204,208 59   |

All the discredited banks except the Arctic and State Stock, have failed to answer or demur to the complaint of the Attorney-general, and they will doubtless be closed up within the next forty days ; the Arctic and State Stock banks will probably require thirty days longer.

#### OHIO BANKS.

The auditor's quarterly returns for May show fifty-three banks in Ohio, viz. : Six independent banks, eleven free banks, and thirty-six branches of the State Banks.

|                                    |             |
|------------------------------------|-------------|
| Amount of capital of branches..... | \$4,091,700 |
| Independent and free.....          | 1,454,450   |
| Whole amount paid in.....          | \$5,546,150 |



|                                                                      |             |
|----------------------------------------------------------------------|-------------|
| Amount of circulation .....                                          | \$9,736,757 |
| Amount of deposits.....                                              | 5,698,275   |
| Reserved and contingent fund.....                                    | 910,800     |
| Specie.....                                                          | 3,783,984   |
| Eastern deposits.....                                                | 1,704,013   |
| Notes of United States and other banks.....                          | 2,210,486   |
| Notes and bills discounted.....                                      | 11,009,632  |
| State stocks, United States stocks, and bonds<br>and mortgages ..... | 2,877,283   |

The City Bank, Columbus, and Forest City Bank are in liquidation.

#### THE DEBT OF EUROPEAN NATIONS.

We condense from the London *Economist* the essential facts in relation to the indebtedness of the principal nations of the Old World, which go to show that the United States, even after the immense expenditure required for the preservation of its nationality, will be far behind the contemporaneous governments in the matter of a large debt. We have turned the pounds sterling into our own currency at the rate of five dollars to the pound, which is near enough for the purposes of this article. The amount, however, will not be strictly accurate.

#### THE DEBT OF GREAT BRITAIN.

In the article from which we quote, the debt of India, part of Great Britain virtually, is separately given, and the writer confesses that "if Austria had boasted of a surplus, and if Hungary had been getting deeper and deeper into debt, we should have vigorously contended that the accounts of the provinces and the accounts of the empire must be considered together."

The following is the debt of England itself:

| DECEMBER 31, 1847. |                 | DECEMBER 31, 1861. |                 |
|--------------------|-----------------|--------------------|-----------------|
| Funded debt....    | \$3,862,009,255 | Funded debt....    | \$3,922,100,035 |
| Unfunded debt..    | 89,732,500      | Unfunded debt..    | 77,649,000      |
| Total.....         | \$3,951,741,755 | Total.....         | \$3,999,749,035 |

The following is the debt of India :

|                                                                                      |               |               |
|--------------------------------------------------------------------------------------|---------------|---------------|
| At the date of the last published returns,<br>being Dec. 31, 1860, for English debt, | In India.     | In England.   |
| April 30, for India.....                                                             | \$386,451,225 | \$148,374,950 |

which is an augmentation of England's debt of about \$235,000,000.

This does not include any liabilities of the Indian government or railway guarantees.

The debt of England is \$4,237,820,300.

#### DEBT OF FRANCE.

|                            |                 |                 |
|----------------------------|-----------------|-----------------|
|                            | 1852.           | 1861.           |
| Funded debt of France..... | \$1,103,288,920 | \$1,943,655,380 |

making an expenditure in ten years of over \$840,000,000 more than its income. France never has a surplus. In the year 1858, which was not affected by the Crimean war or by the Italian war, and in which the revenue of France was greater than it had ever been before or since, the account stood:

|                                                                            |                 |
|----------------------------------------------------------------------------|-----------------|
| Expenditures .....                                                         | \$371,800,000   |
| Revenue.....                                                               | 349,600,000     |
|                                                                            | <hr/>           |
| Deficit .....                                                              | \$22,200,000    |
| Between 1851 and 1860 (inclusive) the<br>expenditure of France has been... | \$3,842,600,000 |
| The revenue amounted to.....                                               | 3,098,400,000   |
|                                                                            | <hr/>           |
| Aggregate deficit.....                                                     | \$744,200,000   |

## DEBT OF AUSTRIA.

Austria never has a surplus. The governments of Europe have generally a habit of spending a good deal more than their income, and borrowing to supply the deficit.

|                                         |                 |
|-----------------------------------------|-----------------|
| Average revenue for four years, 1857-60 | \$144,375,000   |
| Average expenditure.....                | 197,750,000     |
|                                         | <hr/>           |
| Average annual deficit.....             | \$53,375,000    |
| Total national debt, April, 1860.....   | \$1,468,000,000 |
| To which has since been added over...   | 55,000,000      |

Last year Austria spent \$44,500,000 over and above her income.

## DEBT OF ITALY.

Italy is added to the list of countries whose finance is likely to press on the money market for a time. The total debt is \$411,276,710. This is not much for a nation of her resources, but the excess of expenditure over revenue in the year 1861—the sum which she had to borrow—was but little short of \$63,000,000, and this with a total revenue of but \$98,000,000.

## DEBT OF RUSSIA.

Of Russia we have not a very authentic account of her revenue and expenditures for the last few years. She has lately come into the market for a loan, and probably shares the want of money with the other nations and "the rest of mankind." By the Authority of M. OGAREFF, in a book recently published, the debt is stated as follows, and this is probably an approximation to the truth, if not the correct figures. The total debt in 1861, was \$412,050,000. The statement in this book would also make it appear that Russia, during the year 1860, paid off \$26,000,000 of her debt.

## COMMERCIAL REGULATIONS.

1. LETTER FROM THE SECRETARY OF THE TREASURY—ADDITIONAL ISSUE OF U. S. TREASURY NOTES. 2. RULES FOR THE REDEMPTION OF TREASURY NOTES. 3. TAXATION OF NATIONAL SECURITIES. 4. TRADE WITH NEW ORLEANS AND MEMPHIS. 5. ACT TO ESTABLISH A BRANCH MINT. 6. AN ACT AUTHORIZING THE REIMBURSEMENT OF STATES FOR MONEYS ADVANCED IN ENROLLING, ETC., TROOPS. 7. THE MEXICAN QUESTION.

## LETTER FROM THE SECRETARY OF THE TREASURY.

ADDITIONAL ISSUE OF U. S. TREASURY NOTES.

*Treasury Department, June 7, 1862.*

SIR: The act of July 17, 1861, authorized the issue of \$50,000,000 in U. S. notes, payable on demand, and receivable for customs. This authority was enlarged under the act of February 12, 1862, by the addition of \$10,000,000—making \$60,000,000 in all.

The acts of Feb. 25, and March 17, 1862, authorized temporary deposits in the Treasury at rates of interest not exceeding five per cent, nor for a greater aggregate sum than \$50,000,000. This act of February 25, 1861, authorized the issue of \$150,000,000 in United States notes, provided, however, that the demand notes issued under former acts should be retired and cancelled as rapidly as practicable, and that the aggregate of such notes and of the United States notes to be issued under this act should at no time exceed \$150,000,000. All the notes to be issued were made a legal tender, but none except the demand notes, were made receivable for customs.

Under these laws, \$60,000,000 in demand notes, receivable for customs, have been issued, and \$90,000,000 in notes not so receivable. The aggregate now outstanding is, therefore, \$150,000,000, being the whole amount authorized by law.

Of this aggregate about \$56,500,000 in demand notes are held by banks and capitalists, and not used as circulation, being held at a premium in consequence of their receivability for customs of from  $\frac{3}{4}$  to  $\frac{1}{2}$  per cent, and about \$3,500,000 are held in the treasury for circulation.

The whole issue of \$60,000,000 in demand notes may thus be regarded as practically withdrawn from circulation. This withdrawal leaves only the issue of \$90,000,000 of United States notes not receivable for customs, increased gradually by the substitution of the notes for the demand notes cancelled, from which conversion into bonds redeemable after five years, and payable in twenty years, called for convenience, five twenties can be expected to be made.

The limit of temporary deposits is now reached, and nothing further can be expected from that source, for so long as the limit shall be maintained, current receipts of such deposits can only be equal to the payments. It is therefore upon the conversion of United States notes into five twenties, now practically limited to the \$90,000,000 of legal tender

notes and upon receipts from customs, that the treasury must depend, under existing legislation, for means to meet current expenditures.

No safe reliance can be placed on conversions, so far as experience has afforded any grounds of estimate, for more than \$150,000 daily, and the daily average revenue from customs during the past month has been about \$230,000. The aggregate daily receipts from both these sources, therefore, cannot be estimated at more than \$380,000, may very possibly fall short of that sum, while the average daily expenditures cannot be estimated at less than \$1,000,000, and will probably, unless very considerable retrenchments are made, exceed that sum.

I therefore propose the removal of the restriction upon temporary deposits. The plan of receiving them has worked well, and is likely to continue to work well in future. The rate of interest, limited to five per cent by law, has been reduced to four by my direction, and it is not proposed to increase it unless some exigency shall make the increase necessary.

The amount of deposits at four per cent now exceeds \$9,000,000, and will become steadily larger if the restriction be removed. Payments will, of course, be frequently required, but the pressure must be very great which will reduce the receipts below them, while, in ordinary times, the latter will constantly exceed the former. It may indeed become practicable to reduce the rate of interest even below 4 per cent, with advantage. Whatever the rate allowed, the average excess of deposits above reimbursements will constitute a loan to the government at that rate. In order to retain the average excess at this maximum, it may be well to provide by law that, of the United States notes hereafter authorized to be issued, there shall be always reserved in the treasury, or from issue, an amount of not less than one-third the amount deposited.

Such a provision would make the treasury the best of savings banks and by its guaranty of prompt payment under all circumstances insure the highest confidence, and augment to its maximum the flow of deposits. I estimate the amount of loan likely to be made to the Government at 4 per cent or less, in this form, at not less than \$20,000,000, in addition to the \$50,000,000 already deposited.

I propose also that authority be given to the Secretary of the Treasury to issue \$150,000,000 in United States notes, in addition to the issue already authorized, and that these be made a legal tender for debts, except interest on loans, and receivable in payment of all loans to the United States for all government dues except duties on imports and interest.

If this authority be given, the proposed reserve of an amount, say \$34,000,000, not less than one-third the temporary deposits, and the replacement of that portion of the \$60,000,000 of demand notes, say \$56,500,000, now practically withdrawn from circulation and held for payment of customs, will require for the present at least say \$90,500,000 of the proposed additional issue, leaving as an actual present addition to the resources of the Government only \$59,500,000.

This amount, however, gradually increased as it will be by the retirement of the demand notes, will be paid in for public dues, and the replacement of them by other United States notes will probably suffice for all demands, which cannot be met from conversions and from customs.

If Congress shall see fit to authorize the additional emission proposed,

it seems highly expedient that such part as the public convenience shall require be issued in denominations less than \$5.

I am aware of the general objection to the issue of notes under \$5, and concede their cogency. Indeed, under ordinary circumstances they are unanswerable; but in the existing circumstances of the country they lose most if not all their force. The country is involved in the expenditures of a contest for national existence, and it is highly desirable that the burdens of the people be made as tolerable as possible.

If the restriction on the issue of small denomination be removed, the wants of the country will absorb a circulation of \$25,000,000, and perhaps more. The interest on this circulation, say \$1,500,000 a year, will be saved to the tax-payers.

Payments to public creditors, and especially to soldiers, now require large amounts of coin to satisfy fractional demands less than \$5. Great inconveniences in payment of the troops are thus occasioned. With every effort on the part of the treasury to provide the necessary amount of coin, it is found impracticable always to satisfy their demands.

When the amount required is furnished the temptation to disbursing officers to exchange it for any small bank-notes that the soldiers or the public creditors will take, is too great to be always resisted. And even when the coin reaches the creditors it is seldom held, but passes, in general, immediately into the hands of sutlers and others, and disappears at once from circulation. The inconveniences, therefore, to the government and creditors, from the absence of United States notes of small denominations, are not compensated by anybody.

It may properly be further observed that, since the U. S. notes are made a legal tender and maintained nearly at par of gold by the provision for the conversion into bonds, bearing six per cent interest, payable in coin, it is not easy to see why small notes may not be issued as safely as large ones.

The notes made a legal tender circulate as money, and the government may authenticate by device and imprint small notes, as well as small coins. The limit is to be found only in public convenience, which it dictates denominations in notes similar to denominations on gold, leaving the small circulation of silver (less valuable than gold) as before.

Another consideration which deserves to be taken in the account is this, that resumption of payments in specie can be more certainly and easily effected, and with far less inconvenience and loss to the community if the currency, small as well as large, is of United States notes, than if the channels of circulation are left to be filled up by the emissions of non-specie paying corporations, solvent and insolvent.

These considerations of economy of public advantage and of private convenience seem to me to justify fully the removal of the restriction upon the issue of small notes.

I propose, further, to make arrangement for the necessary engraving and other work for the printing and preparation for the issue of these notes in the Treasury Department at Washington. I am led to believe that a very considerable reduction of expense can be thus effected. The prospect, in my judgment, certainly warrants the trial.

With these objects I have prepared a bill which I propose to submit to the consideration of the committee. The condition of the treasury renders prompt action highly desirable, and I trust it is not necessary to



assure the committee or Congress that should the powers asked for be granted, they will be exercised only with the most careful reference to the requirements of the public interest.

Whatever the authority granted may be, no issue of notes will be made except to replace notes withdrawn and cancelled, and to meet the current expenditures authorized by Congress, which cannot be met from the receipts of revenue, from the increase of deposits, and from the proceeds of the conversion into five twenties. With great respect,

S. P. CHASE, *Sec'y of the Treasury.*

HON. THADDEUS STEVENS, *Ch. Com. of Ways and Means.*

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#### RULES FOR THE REDEMPTION OF TREASURY NOTES.

*Treasury Department, Washington, May 18, 1862.*

To guard against frauds upon the government, and to secure the just rights of holders, the following rules, for the redemption of United States notes, are hereby established :

#### RULES.

*First.* Mutilated notes, which have been torn, no matter how much, but of which it is evident that all the fragments are returned ; or defaced, no matter how badly, but certainly satisfactorily genuine, will be redeemed at their full face value on presentation.

*Second.* Fragments of notes will be redeemed *in full* only when accompanied by an affidavit, stating the cause and manner of the mutilation, and that the *missing part of the note is totally destroyed*. The good character of the affiant must, also, be fully vouched by the officer before whom the affidavit is taken.

*Third.* In the absence of such affidavit, fragments of notes will not be paid in full, but the parts presented will be redeemed in their proportion to the whole note ; reckoning, as a general rule, by twentieths.

*Fourth.* Less than half of a note will not be redeemed except by payment of the full value of the note under the second rule ; or by the payment of the proportional value of the missing part, when presented under the fifth rule.

*Fifth.* Fragments of notes for which less than the full face value has been paid will be retained for a year, to the end, that the owners, who have received less than the value of a full note, may have opportunity to return the missing part and receive the amount previously withheld.

*Sixth.* Until further order, mutilated notes and fragments will be redeemed only at the Treasury of the United States, at Washington ; whither they can be sent, addressed to the "*Treasurer of the United States,*" by mail, *free of postage*. A draft on the Assistant Treasurer, at New York, for the amount allowed, will be returned, in the same way, to the address of the person remitting the same.

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

## TAXATION OF THE NATIONAL SECURITIES.

The Worcester *Spy* says, that to satisfy the general wish to ascertain if there was any doubt in regard to the promised exemption of the bonds and notes of the United States from State taxation, a letter has been addressed to the Secretary of the Treasury, and in reply to it the following letter has been received :

*Treasury Department, June 3, 1862.*

SIR: Your letter of the 31st ult., is received, asking a copy of an opinion of the attorney-general upon the liability of the notes and bonds of the United States to municipal and State taxation. And you quote the statement in my appeal in behalf of the national loan as the ground for asking such a copy for public information to those whose subscriptions you received as agent.

My statement was founded on the decision of the Supreme Court of the United States, in the case of Weston *vs.* the City Council of Charleston, reported in 2d Peters, 449, where this question will be found to be elaborately discussed and judicially decided.

Since that time, it seems the Court of Appeals of the State of New York, have ruled that the capital of the banks of that State being subjected to tax under the State laws, a portion of such capital is withdrawn from such taxation by being invested in stocks of the United States. The question has been again brought before the Supreme Court, where it is now pending.

Upon inquiry after the opinion of the attorney-general, to which you refer, I learn that the Board of Brokers of the city of New York addressed a letter to that officer, asking his views upon the ruling of the Court of Appeals, to which he replied, that he had been requested by me to appear in that case before the Supreme Court, and had no doubt but the former decision of that court would be confirmed. I understand it was a mere letter of acknowledgment, and not a formal opinion on the question.

Very respectfully, your obedient servant,

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

STEPHEN SALISBURY, Esq., Worcester, Mass.

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 TRADE WITH NEW ORLEANS AND MEMPHIS.

The Cincinnati papers of Wednesday, June 11th, contain the following:

On Monday last JOSEPH C. BUTLER, President of the Chamber of Commerce, telegraphed Secretary CHASE as follows:

*Cincinnati, June 9.*

I would like to announce by authority that shipments of provisions and manufactures may be made to Memphis, and also to New Orleans, if Vicksburg is taken. Our merchants and manufactures will not abuse the privilege.

JOSEPH C. BUTLER,

*President Chamber of Commerce.*

To this dispatch Secretary CHASE responded as follows :

Washington, June 9, 1862.

Shipments may be made to Memphis, and all other places in possession of the United States forces, under the existing regulations to prevent aid to the rebels, and subject to the inspection and control of the military commanders at points of arrival and destination ; and also from all such places, with permission of the military commanders.

Tender to the Chamber of Commerce, and my fellow citizens of Cincinnati, my heartiest congratulations on the partial reopening of our great rivers, soon, I trust, to be completed. *May they never again be closed to American commerce.*

S. P. CHASE.

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#### ACT TO ESTABLISH A BRANCH MINT.

The following is a copy of an act to establish a branch mint of the United States at Denver, in the Territory of Colorado, approved April 21, 1862 :

*Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,* That a branch of the mint of the United States be located and established at Denver, in the Territory of Colorado, for the coinage of gold.

SEC. 2. *And be it further enacted,* That, for carrying on the business of said branch, the following officers shall be appointed as soon as the public interests shall require their service, upon the nomination of the President, by and with the advice and consent of the Senate, namely : One superintendent, one assayer, one melter and refiner, and one coiner ; and the said superintendent shall employ as many clerks, subordinate workmen and laborers, under the direction of the Secretary of the Treasury, as may be required. The salaries of the said officers shall be as follows : To the superintendent, the sum of two thousand dollars ; to the assayer, the sum of eighteen hundred dollars ; to the melter and refiner, eighteen hundred dollars ; to the coiner, eighteen hundred dollars ; to the clerks, subordinate workmen and laborers, such wages and allowances as are customary, according to their respective stations and occupations.

SEC. 3. *And be it further enacted,* That the officers and clerks to be appointed under this act, before entering upon the duties of their offices, shall take an oath or affirmation, before some Judge of the United States or of the Supreme Court of said Territory, faithfully and diligently to perform the duties of their offices, and shall each become bound to the United States of America, with one or more sureties, to the satisfaction of the director of the mint or the Secretary of the Territory of Colorado and of the Secretary of the Treasury, with the condition of the faithful performance of the duties of their offices.

SEC. 4. *And be it further enacted,* That the general direction of the business of said branch of the mint of the United States shall be under the control and regulation of the director of the mint at Philadelphia, subject to the approbation of the Secretary of the Treasury ; and for that purpose it shall be the duty of the said director to prescribe such regula-

tions and require such returns periodically and occasionally, and to establish such charges for parting, assaying, refining, and coining, as shall appear to him to be necessary for the purpose of carrying into effect the intention of this act in establishing said branch; also for the purpose of preserving uniformity of weight, form, and finish in the coin stamped at said branch.

Sec. 5. *And be it further enacted*, That said branch mint shall be a place of deposit for such public moneys as the Secretary of the Treasury may direct. And the superintendent of said branch mint, who shall perform the duties of treasurer thereof, shall have the custody of the same, and also perform the duties of assistant treasurer; and for that purpose shall be subject to all the provisions contained in an act entitled "An act to provide for the better organization of the treasury, and for the collection, safe-keeping, transfer, and disbursement of the public revenue," approved August 6, 1846, which relates to the treasury of the branch mint at New Orleans.

Sec. 6. *And be it further enacted*, That the superintendent of said branch mint be authorized, under the direction of the Secretary of the Treasury, and on terms to be prescribed by him, to issue in payment of the gold dust and bullion deposited for assay and coinage or bars, drafts or certificates of deposit, payable at the Treasury or Sub-treasury of the United States, to any depositor electing to receive payment in that form.

Sec. 7. *And be it further enacted*, That all the laws and parts of laws now in force for the regulation of the mint of the United States, and for the government of the officers and persons employed therein, and for the punishment of all offences connected with the mint or coinage of the United States, shall be and are hereby declared to be in full force, in relation to the branch of the mint by this act established, as far as the same may be applicable thereto.

Sec. 8. *And be it further enacted*, That the sum of \$75,000 be and the same is hereby appropriated, out of any money in the Treasury not otherwise appropriated, to carry into effect the provisions of this act, and to meet the expenses of the current year, and for the fiscal year ending the 30th of June, 1863.

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AN ACT AUTHORIZING THE REIMBURSEMENT OF STATES FOR MONEYS  
ADVANCED IN ENROLLING, ETC., TROOPS.

The following is a copy of the act approved May 13, 1862 :

*Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled*, That the provision in the fifty-third section of the act "to provide increased revenue from imports, to pay interest on the public debt, and for other purposes," approved August 5, 1861, allowing such portion of the tax as may be assessed by any State, Territory, or the District of Columbia, "to be paid and satisfied, in whole or in part, by the release of such State, Territory, or District, duly executed, to the United States, of any liquidated and determined claim of such State, Territory, or District of equal amount against the United States: *Provided*, That in case of such release, such State, Terri-

tory, or District shall be allowed the same abatement of the amount of such tax as would be allowed in case of the payment of the same in money," shall be construed as applying to such claims of States for reimbursement of expenses incurred by them in enrolling, subsisting, clothing, supplying, arming, equipping, paying, and transporting its troops employed in aiding to suppress the present insurrection against the United States, as shall be filed with the proper officers of the United States before the 13th of July next. And in such cases the abatement of fifteen per centum shall be made on such portion of said tax as may be paid by the allowance of such claims, in whole or in part, the same as if the final settlement and liquidation thereof had been made before the 13th of June.

Approved, May 13, 1862.

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### THE MEXICAN QUESTION.

EARL RUSSELL TO THE BRITISH MINISTER IN MEXICO.

The following copy of the last note addressed by Earl RUSSELL to Sir C. WYKE, the British Minister at Mexico, explains the causes of the disruption of the alliance :

*Foreign Office, May 22, 1862.*

MY LORD : Her Majesty's government have had under their consideration your dispatch dated from Orizaba the 11th of April, your former dispatches relating to General ALMONTE, and especially the *proces-verbal* of the conference held at Orizaba on the 9th of April.

Her Majesty's government regret to find that the hope of agreement between the commissioners of Great Britain and Spain on the one hand, and of France on the other, was completely extinguished, and that Admiral JURIEU DE LA GRAVIERE and M. DUBOIS DE SALIGNY had determined to march on Mexico, while you and General PRIM were of opinion that there was no reason for refusing to meet the Mexican Commissioners in the conference which had been fixed to meet at Orizaba on the 16th of April.

The differences of opinion among the Commissioners appear to have turned chiefly on two points. The first of these related to the protection given to General ALMONTE by the French army, and the demand of the Mexican Government that he should be sent back to France. The second point of difference is thus stated by M. DUBOIS DE SALIGNY, in the conference of the 9th of April : " M. DE SALIGNY insists on this point, that it is impossible to deny that the real and principal object of the convention was to obtain satisfaction for the outrages heaped on foreigners by the Mexican Government, and to enforce its observance of treaties ; that the temporising and conciliatory system hitherto pursued was condemned by what was daily occurring, inasmuch as the reign of extortion, tyranny, and violence had been made doubly oppressive, and had rendered the situation of foreigners quite intolerable ; that proofs of this were continually afforded by the complaints daily sent in to him ; that the attitude of the allied forces appeared to have stimulated the government to redoubled audacity ; that, for his part, he formally declared that he would not treat with that government ; and that his well-matured opinion was that it was necessary to march upon Mexico."



Her Majesty's government approve of your conduct on both those points. They consider that the presence of General ALMONTE in Mexico, under the protection of the French army, might fairly be considered as a provocation to civil war, and Her Majesty's government could not have approved of a measure having that tendency; for at that time the government of Mexico was a government with which the allies were conducting negotiations with a view to a peaceful settlement of their differences.

Her Majesty's government are also of opinion that you acted rightly when, in answer to M. DE SALIGNY's declaration of his unchangeable resolution not to treat with the government of President JUAREZ, you refused to affix your signature to the answer addressed by the French Commissioners to General DOBLADO, and thereby broke up the conference, and put an end to the joint action of the three powers.

Her Majesty's government greatly regret that the co-operation with France should cease; and they regret, above all, that the hope of the fulfillment of the objects of the convention of October 31st, which might have been attained before the end of April—had the conference met on the 15th—should thus have been abandoned.

Her Majesty's government have every reason to be satisfied with the determination you took. They concur in the opinions given by General PRIM, and are happy to find that the conduct of the representative of her Catholic Majesty has been approved by the government of Spain.

Nor is there any reason to regret the course taken by Her Majesty's government. Had they delayed asking redress from the government of Mexico for the wrongs of British subjects, they would have given rise to just complaints from those who are entitled to Her Majesty's protection. Had they pursued their own course separately, and refused to act with France and Spain, they would have produced irritating and unsatisfactory relations, perhaps collisions, between the military and naval forces of the three great European powers. Had they, on the other hand, evinced an insurmountable repugnance to treat with President JUAREZ, *they would have been wanting in due regard to the independence of the Mexican people.*

Had Her Majesty's government, therefore, taken any other course than that which was adopted, they would have incurred the risk of evils greater even than the separation which has now occurred.

You will understand that while Her Majesty's government lament the course taken by the Commissioners of the Emperor of the French, nothing has occurred to impair the friendly relations which continue to subsist between the two governments of Great Britain and France.

I am, &c.,

RUSSELL.

## JOURNAL OF MINING, MANUFACTURES, AND ART.

1. LAKE SUPERIOR IRON—AMOUNT AND QUALITY. 2. WESTERN ENTERPRISE—EXPLORING THE UPPER MISSOURI. 3. THE ROCK OIL BUSINESS. 4. DEPTH OF MINES IN ENGLAND. 5. ANOTHER EL DORADO. 6. MANUFACTURE OF BEET-ROOT SUGAR.

## LAKE SUPERIOR IRON—AMOUNT AND QUALITY.

THE Lake Superior *Journal*, in speaking of the future shipment of iron ore, says :

“Some idea of the vast iron interests of this region may be formed by our readers in the East, when we state the settled conviction here is that ONE HUNDRED AND FIFTY THOUSAND TONS of iron ore will be shipped from our docks during this present season of navigation. This is not the chimerica of a vivid imagination, but a sober estimate founded on facts and figures. Indeed, we have reason to believe the estimate is too low, for the following reasons :

“1st. The calculation is partially based on the shipments of last year, and we know how depressed the iron interest was then.

“2d. The indications are that this season will be a highly prosperous one for iron, on account of the more settled condition of the country, and the new uses to which this metal is being constantly put, such as building ships, houses, and the like.

“3d. Already, before the season is fairly opened, nearly that amount (one hundred and fifty thousand tons) has been contracted for, to be delivered in Cleveland, Erie, and Buffalo.

“To carry away this product of our iron hills at one time would—allowing two hundred tons to each—require *seven hundred and fifty vessels*, a fleet about as large as the navy of Great Britain. This, we think, will give our readers some idea of the vast wealth yet stored away in this region, and as yet untouched.”

The same journal also tells us that—

“During the past week Marquette and the iron mountains beyond have been visited by Mr. BLACKWELL, of London, and formerly Vice-President of the Grand Trunk of Canada. He is a gentleman of high scientific attainments, and came here, at the solicitation of a large iron company in England, to examine the iron mountains and their value, and what advantages are offered here for manufacturing the ore. The company desired to find out whether the reports which had reached England about the quantity and quality of Lake Superior iron are true; and, if so, why so little is being done by capitalists to bring it forward. Also, what advantages we possessed for manufacturing the ore; and whether it could not be shipped to England.

“Mr. BLACKWELL visited the mountains in company with two or three

gentlemen interested in the matter. He was surprised at seeing the vast piles of ore yet untouched, and says that there is not another such deposit upon the globe. As to quality, he pronounces it equal to, or better than, the Russian; and says that, if we only took as much pains to produce a good article as we take to produce a large amount, this Lake Superior iron would drive the Russian from the market. He says, also, that steel can be made from it, of as good a quality as that manufactured from the Swedish iron, so extensively used in England; and all that is needed here is money to manufacture it."

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#### WESTERN ENTERPRISE—EXPLORING THE UPPER MISSOURI.

The American Exploring and Mining Company, of St. Louis, dispatched on the 15th ult. their first exploring party on the steamer *Emilie*, Capt. JOSEPH LABARGE, bound for the head waters of the Missouri River and the Rocky Mountains. The hunters and trappers, who have heretofore alone frequented those wild regions, and poured their gain and traffic into the fur companies, now have competition, and assistance to develop the resources there for agriculture, mining, and manufacturing. Already the impetus given to emigration, *via* Missouri River, to the mountains and Pacific coast, is fully equal to the steamboat facilities for its accommodation. It is the intention of the parties who are now enlisted in the opening up of that region, to make the present navigation arrangements a permanent line of packets from St. Louis to the Great Falls of Missouri River, 3,200 miles by river from St. Louis.

The American Exploring and Mineral Company was formed but a few months ago, and now send out this exploring party, fitted with an abundance of implements and the necessary provision for exploring and mining one year or more, and they will represent the energy and adventure of the American character. Three of the party are old experienced miners, and in company with H. M. THOMPSON, have been mainly instrumental in perfecting this organization. These gentlemen were probably the first of any in St. Louis to move in the undertaking now so prosperously commenced. On the 22d of March of this year, they, together with a few friends whom they had made acquainted with their plans, met at the office of H. M. THOMPSON, and organized this company, with a capital of \$100,000, and chose JOSHUA FOGG, Esq., President, with a good board of directors, who have devoted themselves to the advancement of the company's interests. As the party go out in the service of an organized company of St. Louis men, more than a passing interest is attached to its departure. This immense country is to be opened up to the trade of the world, and the business men of St. Louis and other cities naturally feel a deep interest in this undertaking, as the Missouri River is sure to be the great highway to and from the Pacific coast, and an early and adequate movement should be made to reap the benefits of these newly discovered golden fields.

There is but little doubt, from all accounts received, that this is a very rich mineral country. One who is well acquainted with it says: "The world will be astonished when it is made known." The exploring party

will make thorough investigations, and report to the secretary of the home organization at the office of H. M. THOMPSON, in St. Louis, which will be headquarters for direct and reliable information from the gold regions of the Upper Missouri and Bitter Root valleys.

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#### THE ROCK OIL BUSINESS.

The Oil City *Register*, published at the great center of the oil trade, gives the following table, showing the number of wells now flowing, etc., on Oil Creek:

|                                                      |             |
|------------------------------------------------------|-------------|
| Number of wells now flowing.....                     | 75          |
| Number of wells that formerly flowed and pumped....  | 62          |
| Number of wells sunk and commenced.....              | 358         |
|                                                      | <hr/>       |
| Total.....                                           | 495         |
| Amount of oil shipped.....bbls.                      | 1,000,000   |
| Amount on hand to date.....                          | 92,450      |
| Present amount of daily flow.....                    | 5,717       |
| Average value of the oil at \$1 per bbl.....         | \$1,092,000 |
| Average cost of wells \$1,000 each.....              | 495,000     |
| Machinery, buildings, etc., from \$500 to \$700 each | 500,000     |
| Total number of refineries.....                      | 25          |

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#### DEPTH OF MINES IN ENGLAND.

An English journal, after valuing the total product of the mines of Great Britain at £41,491,102 per annum, and computing that England's supply of coal will last at least seven hundred years longer, at present rates of consumption, gives the following account of the depth to which the bowels of the earth have been pierced in England:

The depth to which we mine for coal is already great. The pit at Duckenfield, in Cheshire, is 2,004 feet below the surface to the point where it intersects the "Black Mine Coal," a seam which is four feet six inches thick, and of the best quality for domestic and manufacturing purposes; from this point a further depth of 500 feet has been attained by means of an engine plane in the bed of coal, so that a great portion of the coal is now raised from the enormous depth of 2,504 feet. At Pendleton, near Manchester, coal is daily worked from a depth of 2,135 feet; and the Cannel coal of Wigan is brought from 1,773 feet below the surface. Many of the Durham collieries are equally deep, and far more extended in their subterranean labyrinths. Some of those, and others in Cumberland, are worked out far under the bed of the sea; and on both sides of the island we are rapidly extending our sub-oceanic burrowing.

Dolcoath tin mine, in Cornwall, is now working at 1,800 feet from the surface, and is rapidly sinking deeper. The depth of Tresavean, a copper mine is 2,180 feet. Many other tin and copper mines are approaching

these depths ; and under the Atlantic waves, in Botallack, Levant, and other mines, man is pursuing his labors daily at half a mile from the shore. To aid the miner in these severe tasks steam engines, with cylinders one hundred inches in diameter, are employed in pumping water from these vast depths. Winding-engines, which are masterpieces of mechanical skill, are even at work raising the minerals from each dark abyss, and "man-engines," of considerable ingenuity—so-called because they bring the wearied miners to the light of day, saving him from the toil of climbing up perpendicular ladders—are introduced in many of our most perfectly conducted mines. Our coals cost us annually one thousand lives, and more than double that number of our metaliferous miners perish from accidents in the mines, or at an unusually early age—thirty-two—from diseases contracted from the conditions of their toils. By the industry of our mining population there is annually added to our national wealth considerably more than thirty million sterling. This, when elaborated by the process of manufacture, is increased in value tenfold. While we are thus drawing upon that "hoarded treasure, guarded by dragons white and red," which the enchanter Merlin is fabled to have concealed in the caves of the earth, we should not cease to remember how much of mental labor and muscular power is expended, and how large a percentage of human life is annually sacrificed in the contest with those hydra-headed evils which are truly personified by the dragons of the legend.

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#### ANOTHER EL DORADO.

The London *Times* publishes some wonderful statements respecting the new gold district of Carriboo, British Columbia, located about 500 miles inland to the northeast of the mouth of Frazer River on the Pacific coast. If reports are true, wealth can be had merely for picking up, over a considerable stretch of country. These golden treasures lie amid a rugged mass of mountains, and were not discovered until 1860. Within two years a well peopled district have arisen, with all the adjuncts of civilization, including plenty of grog-shops. The gold country is about 30 by 50 miles square, so far as explored. The precious metal is in coarse granulated lumps mixed with gravel, with occasional pure nuggets of considerable size. The mining holes are described as shining with gold. Veins and boulders of tempting quartz are seen in every direction among the hills. About \$1,700 was dug out of two crevices in the rock, less than three feet under the surface. The best claim on Vanwinkle creek produced \$100 to \$200 per day to the hand. On Keithley's creek the companies were making from \$50 to \$100 per day to the hand, and on hillside (dry diggings) \$120 a man per day. On Antler creek the rocker yielded 50 ounces of gold (or \$850) in a single forenoon. Two men below the town of Antler have taken out \$18,000 with a rocker since last spring. A man who had left Victoria penniless, returned last autumn with \$2,000 in dust, which he had dug in about two months. The average yield on the fluming claims is 60 ounces a day to the hand. Water for sluicing sold at 50 cents an inch, (cubic measure, flowing through a square tube,) yet, after paying this heavy charge, the yield left \$40 to \$60 a day to the miner. The gains of the miners far surpasses anything re-



corded of California or Australia. One miner says his claim will last ten years "to work it out." Labor commands \$8 per day with board; so that an industrious and healthy man cannot fail to make money. Gold dust is worth \$16 30 to \$16 50 per ounce, or \$17 in payment for goods. It averages about 850-100ths fine, though some specimens assayed 918. The winter climate of Carriboo is not worse than that of Canada. The Indians are peaceable. Among the drawbacks are the want of good roads and the consequent difficulty of obtaining supplies of provisions and tools, for both of which very high prices have to be paid. Probably the lowest price paid for any article of food is \$1 a pound, on the California scale twelve years ago. The mining season continues from May to October; but as tunnelling has commenced, there will be no difficulty in the mines all the year through.

#### MANUFACTURE OF BEET-ROOT SUGAR.

An eminent Prussian chemist, of the name of MARGGRAF, first called the attention of the public to beet-root sugar, by an elaborate memoir printed in the *Transactions* of the Academy of Berlin for 1747. The roots selected by him for experiment were the skirret, (a variety of parsnip,) the white beet, and the red. He found that when slices of these were dried by a very gentle heat, small spicular crystals of sugar might be observed in them by a microscope. Next he reduced the dried root to powder, and digested it in boiling alcohol, by which the whole of the sugar was dissolved, and the mucilage, starch, and most of the other impurities were left behind. The alcoholic solution, by long rest, deposited crystals of sugar, which, by re-solution and crystalization, were obtained quite white, amounting in quantity to from one-twenty-fifth to one-sixteenth of the weight of the dried root. He also found that the white beet loses by drying three-fourths of its weight, and the red beet seven-eighths.

He next made an attempt to manufacture sugar from these roots; for which purpose, having broken down the texture of the skirret by bruising it in a mortar, and of the beet by grating it, he pressed out the liquor, and kept it at rest for forty-eight hours in a cool cellar. It here deposited most of the feculence; and the clear liquor was drawn off. It was then clarified with white of egg, boiled down, and the syrup, after some months, afforded brown crystals intermixed with syrup. The crystalline part was again dissolved, crystallized anew, and afforded a concrete viscid mass, from which the syrup drained off by degress, and left the rest nearly in the state of muscovado, or raw cane sugar.

The experiments of MARGGRAF were, several years afterwards, resumed by M. ACHARD, at the desire of the Prussian government. He followed the general process pointed out by his predecessor, except that he boiled the beet previous to pressing it—a change obviously for the worse, as he thus rendered soluble most of the starch, and introduced an additional embarrassment in the subsequent operations.

After the failure in France of the attempt to make grape-sugar, the attention of CHAPTAL, at that time Minister of the Interior, and a manufacturing chemist of considerable eminence, was directed to the half-suc-

cessful attempts which had been made in Prussia, and other parts of Germany, to obtain sugar from beet-root, and which I have already mentioned. A manufactory was established by M. CHAPTAL at Amboise, on the Loire; and by substituting a crop of beet, in the rotation of his farm, instead of a naked fallow, and by feeding sheep and cattle on the fibrous residue of the roots, after having pressed out the sweet liquor, he obtained his raw material at a very easy price. The subsequent treatment of the juice differed in no material degree from that employed by MARGGRAF, except that instead of at first standing to settle it was directly run into the boiler, where it was mixed with quicklime. The other processes were also much expedited; and the result, according to the statement of M. CHAPTAL, was a profit of sufficient magnitude to encourage the extension of the manufacture. At the end of 1825, there had been twenty-six establishments founded in the north of France for the preparation of beet-sugar; and from that time to the present, the number appears to have been continually increasing, and the quality of their products improving. This has been the result of several advantageous modifications of the original process.

The juice, after being pressed from the pulp, undergoes its first defecation in a boiler, where it is mixed, while cold, with a small quantity of dilute sulphuric acid. After this latter is judged to have acted sufficiently, it is neutralized by the addition of slacked lime; and the fire is then lighted. When the liquor has been heated up to about 100° Fahr., animal charcoal is first stirred into it, and then blood diluted with water. As the heat increases, the blood coagulates and involves all the impurities floating in the liquor, which after filtration through a woollen cloth, is clear, bright, and of a very pale yellow color. It is now put into a shallow boiler, and evaporated at a heat never exceeding 200°, for fear of burning it, till it is brought to the consistence of syrup. It is then filtered, is further reduced by boiling, and then is transferred to a cistern, where it is stirred continually until it granulates, and is got sufficiently cool to be poured into cones of earthenware; after which it is treated precisely as cane-sugar.

It has been, however, observed, that the lime employed in the process of defecation injured the sugar in the subsequent boiling; to prevent which the manufacturers are now in the habit of adding the lime to the raw liquor, and afterwards saturating it, or very nearly so, with sulphuric acid.

It appears, on a general average, that the beet used by the French manufacturers yields 70 per cent of juice; and that 100 parts of the entire beet afford from two to two and a-half of common loaf-sugar. The molasses, or uncrystallizable syrup, when fermented and distilled, yield a spirit, which, on account of its peculiar and disagreeable flavor, is only employed in the composition of varnishes and other similar uses.—*The Grocer of London.*

## RAILWAY, CANAL, AND TELEGRAPH STATISTICS.

1. THE NEW YORK STATE CANALS. 2. THE SUEZ CANAL. 3. MORRIS CANAL AND BANKING COMPANY. 4. THE PACIFIC RAILROAD.

### THE NEW YORK STATE CANALS.

The following tables, which we take from the Auditor's Report, show the amount transported and received for tolls on the canals of the State during the years 1860 and 1861:

| Description of articles.        | 1860.            | 1861.            | 1861.          | 1861.          |
|---------------------------------|------------------|------------------|----------------|----------------|
|                                 | Tons.            | Tons.            | Gain in tons.  | Loss in tons.  |
| Furs and peltry.....            | 222              | 155              | .....          | 67             |
| Products of wood.....           | 1,509,755        | 1,052,237        | .....          | 457,518        |
| Product of animals.....         | 19,882           | 19,282           | .....          | 600            |
| Vegetable food.....             | 1,659,158        | 2,122,237        | 463,079        | .....          |
| All other agricultural products | 3,714            | 2,854            | .....          | 860            |
| Manufactures.....               | 268,759          | 280,256          | 11,497         | .....          |
| Merchandise.....                | 250,360          | 135,096          | .....          | 115,264        |
| Other articles.....             | 938,364          | 895,518          | .....          | 42,846         |
| <b>Total.....</b>               | <b>4,650,214</b> | <b>4,507,635</b> | <b>474,576</b> | <b>617,155</b> |

| Description of articles.        | 1860.            | 1861.            | 1861.            | 1861.          |
|---------------------------------|------------------|------------------|------------------|----------------|
|                                 | Tolls.           | Tolls.           | Gain in tolls.   | Loss in tolls. |
| Boats and passengers.....       | \$199,479        | \$207,924        | \$8,445          | .....          |
| Furs and peltry.....            | 113              | 81               | .....            | 32             |
| Products of wood.....           | 657,511          | 398,566          | .....            | 258,945        |
| Product of animals.....         | 13,039           | 14,132           | 1,093            | .....          |
| Vegetable food.....             | 1,574,390        | 2,856,846        | 1,282,456        | .....          |
| All other agricultural products | 1,348            | 1,220            | .....            | 128            |
| Manufactures.....               | 87,956           | 95,722           | 7,766            | .....          |
| Merchandise.....                | 223,885          | 107,958          | .....            | 115,927        |
| Other articles.....             | 251,876          | 226,336          | .....            | 25,540         |
| <b>Total.....</b>               | <b>3,009,597</b> | <b>3,908,785</b> | <b>1,299,760</b> | <b>400,572</b> |

Comparing the two years we find a loss of 617,155 tons in various descriptions of property, and a gain of 474,576 in other descriptions. The balance against the canals on this account is 142,579 tons. There is a gain of \$1,299,760 in tolls on four classes of property, and a loss of \$400,572 on five other classes, leaving a balance in favor of the canals for the year of \$899,188.

It has been supposed that the traffic on the canals has been much benefited during the season of 1861 by the navigation of the Mississippi

river being closed. On this point, the Auditor says that no increased tonnage from the West has been thrown in an eastern direction to reach our canals by that obstruction. New Orleans has not been a shipping port of grain in bulk to a European market. Our increase in tonnage and tolls over 1860 has been almost exclusively in "vegetable food." In consequence of the disturbed state of the country the traffic in the "products of the forest" has fallen off from 1860, 457,518 tons, with a loss \$253,945 in tolls. This is the first serious disturbance we have met with in a series of years in this class of canal traffic. With a restoration of peace and confidence and a revival of business we may expect a return of that trade to its wonted channels.

We cannot expect hereafter to keep up the large transits in "vegetable food" on the canals which we had in 1860 and 1861 in the absence of a supply and demand equal to those two years; shall we have them? If not, then it behooves us to look out for other sources of revenue and for other traffic from which tolls can be drawn. The "products of the forest," or the most of them, will probably be retained by the canals in spite of railway competition.

Of the increased receipts on "vegetable food," as exhibited in the last preceding table, \$525,895 arose from the increased rates made by the canal board on wheat, corn, and flour, in the spring of 1861.

The following statement shows the number of tons of each class of property carried on the canals during the season of navigation, in the year 1861; and on all the railroads in the State from the 1st of October, 1860, to the 30th of September, 1861:

| Description of articles.        | Tons of each class carried on the canals. | Tons of each class carried on all the railroads. | Total tons carried on all the canals and railroads. |
|---------------------------------|-------------------------------------------|--------------------------------------------------|-----------------------------------------------------|
| Products of the forests.....    | 1,052,392                                 | 540,079                                          | 1,592,471                                           |
| Products of animals.....        | 19,282                                    | 1,067,070                                        | 1,086,352                                           |
| Vegetable food.....             | 2,122,237                                 | 1,220,332                                        | 3,342,569                                           |
| Other agricultural products.... | 2,854                                     | 211,209                                          | 214,063                                             |
| Manufactures.....               | 280,256                                   | 568,691                                          | 848,947                                             |
| Merchandise.....                | 135,096                                   | 719,017                                          | 854,113                                             |
| Other articles.....             | 895,518                                   | 1,134,011                                        | 2,029,529                                           |
| Total tons carried.....         | 4,507,635                                 | 5,460,409                                        | 9,968,044                                           |

Of this amount carried by railroads, the following table shows the amount carried by the New York Central and the New York and Erie Railroads, compared with the amount transported by the canals:

|                             | The forest. | Product of animals. | Vegetable food. | Other agric'l prod'cts. | Man'fac-tures. | Merchan-dise. | Other articles. | Total.    |
|-----------------------------|-------------|---------------------|-----------------|-------------------------|----------------|---------------|-----------------|-----------|
| New York Central....        | 39,310      | 251,964             | 441,562         | 47,341                  | 80,597         | 192,583       | 113,945         | 1,167,302 |
| New York and Erie...        | 108,685     | 209,757             | 243,959         | 26,919                  | 145,673        | 167,244       | 351,181         | 1,253,418 |
| Total.....                  | 147,995     | 461,721             | 685,521         | 74,260                  | 226,270        | 359,827       | 465,126         | 2,420,720 |
| New York canals.....        | 1,052,392   | 19,282              | 2,122,237       | 2,854                   | 280,256        | 133,096       | 895,518         | 4,507,635 |
| Excess by canals....        | 904,397     | .....               | 1,436,716       | .....                   | 53,986         | .....         | 430,392         | 2,825,491 |
| Excess by railroads...      | .....       | 442,439             | .....           | 71,406                  | .....          | 224,781       | .....           | 733,567   |
| Total excess by canals..... | .....       | .....               | .....           | .....                   | .....          | .....         | .....           | 2,086,915 |

## THE SUEZ CANAL.

The annual meeting of the shareholders of the Suez Canal Company was held in Paris on the 2d of May. The report contains several very interesting facts. It appears from it that there exists no doubt in the opinion of the chief engineer that the waters of the Red Sea will unite with the Mediterranean in the course of eight months. Port Said is commenced, and the new town already contains a population of 1,000 Europeans and 2,000 Arabs. There are at present 26,000 Arabs employed, and their number will shortly be increased to 40,000. M. DE LESSEPS congratulated the shareholders on all political opposition to the canal having ceased, and paid a high compliment to Lord RUSSELL, Mr. GLADSTONE, and Mr. MILNER GIBSON for their speeches in Parliament on the subject. The Alexandria correspondent of the London *Times* transmits the following further information on this subject: The Suez Canal Company have lately been enabled, by means of the large supply of men obtained from government, to push on their operations with greater activity. They have at the present moment, according to the information I have received from a gentleman who has just returned from the Isthmus, in forced labor about 22,000 men, and about 1,500 volunteers. The intention is to raise the number of laborers to 40,000 men if the government can be induced to grant them. At present the work is almost entirely concentrated upon the cutting to be made through the sand heights of El Djisr, and engineers of the company promise that the *rigole de service*, or small elementary canal, will, within the next two months, convey the water of the Mediterranean into the basin of Lake Timash. This canal, it will be remembered, is about 15 feet wide and about 18 inches in depth. The portion of the *rigole* constructed through Lake Menzaleh last year has been almost entirely obliterated. Some 22 dredging machines are shortly to be at work re-excavating the canal on the full scale, and with strong embankments. At Port Said some of the iron piles lately driven into the sea for the purpose of forming a small stone islet on the line of the proposed western jetty have, after a severe storm, been either bent or else they have given way in their foundations, and the cross iron tie-bars have been broken away. These skeleton frames of iron are intended to be filled with large blocks of stone, to be brought for the purpose from the quarries of Mex, near Alexandria. The wooden jetty that projects from the shore, and which is constructed with wooden piles filled in with stone, has not been injured by the late storm. It will be seen from the above that very much, in fact, almost everything, remains to be done. Whether the project will or will not be brought to a successful termination is, of course, entirely a question of money and men. Where these can be obtained in sufficient abundance it can hardly be said that the accomplishment of any work whatever is beyond the skill of modern engineering. But there is clearly room for the strongest doubt that the capital subscribed by the company will be sufficient to effect the object, and when it is exhausted it is difficult to see whence another supply will be obtained, especially as the improbability of the canal, even if made, ever paying or being of any practical use must become more and more apparent. It is not unlikely also that it will presently be discovered that the Isthmus of Suez is, after all, not a weak point *dans la cuirasse Anglaise*.



## MORRIS CANAL AND BANKING COMPANY.

From the report of this company for the fiscal year ending February 28, 1862, we learn that the canal was opened for business on the 18th of March on the western division, and the 25th on the eastern division. The navigation was maintained, with occasional interruption from casualties to the banks and machinery, until closed by ice on the 13th of December at the west end, and the 20th of December at the east end.

The income of the company from tolls and other sources was \$291,846 37

And the expenses were :

|                                                 |              |              |
|-------------------------------------------------|--------------|--------------|
| Operating canal.....                            | \$31,068 53  |              |
| Repairing canal and works.....                  | 82,365 18    |              |
| Salaries, interest, law, and other expenses.... | 25,611 75    |              |
| Transportation expenses.....                    | 4,357 41     |              |
|                                                 |              | 143,402 87   |
|                                                 |              | <hr/>        |
| Profit .....                                    | \$148,443 50 |              |
| Balance at credit February 28, 1861.....        | 18,290 68    |              |
|                                                 |              | <hr/>        |
|                                                 |              | \$166,734 18 |
| Dividends on preferred stock.....               | \$117,500 00 |              |
| Interest on mortgage bonds.....                 | 32,910 00    |              |
| Depreciation of boats, horses, etc.....         | 3,603 42     |              |
| Balance surplus.....                            | 12,720 76    |              |
|                                                 |              | <hr/>        |
|                                                 |              | \$166,734 18 |

Compared with the previous year the receipts show a decrease of \$58,864 26, with a decrease in expenses of \$869 39—making the decrease in net earnings \$57,994 87.

Notwithstanding the diminution of business upon the canal, and the consequent reduction of income of the company, the net earnings of the year have sufficed to enable the company to keep their works in good repair, increase the capacity of the canal, to pay the interest on the bonded debt, and the usual dividend on the preferred stock.

The expenditures during the year, for the permanent improvement of the canal, and its works, including the outlay at Jersey City, and for new boats, has amounted to the sum of \$42,677 50. These improvements and outlays were deemed necessary for an increased efficiency of the canal, and to furnish additional facilities to the trade. In reference to the improvements made and expenses incurred under this head the engineer says :

## GENERAL STATEMENT.

Cost of canal and appurtenances..... \$2,895,962 79

## ASSETS.

|                          |             |                |
|--------------------------|-------------|----------------|
| Cash .....               | \$11,728 75 |                |
| Bills receivable.....    | 25,157 50   |                |
| Individual accounts..... | 39,295 10   |                |
| Materials.....           | 23,377 21   |                |
|                          |             | <hr/>          |
|                          |             | 99,558 56      |
|                          |             | <hr/>          |
|                          |             | \$2,995,521 35 |

## CAPITAL STOCK.

|                     |                |
|---------------------|----------------|
| Consolidated.....   | \$1,025,000 00 |
| Preferred.....      | 1,175,000 00   |
|                     | <hr/>          |
|                     | \$2,200,000 00 |
| Mortgage bonds..... | 655,250 00     |
|                     | <hr/>          |
|                     | \$2,855,250 00 |

## LIABILITIES.

|                              |                |
|------------------------------|----------------|
| Bills payable.....           | \$117,594 75   |
| Individual accounts.....     | 6,238 06       |
| Dividends unclaimed.....     | 3,447 78       |
| Coupons.....                 | 270 00         |
|                              | <hr/>          |
|                              | 127,550 59     |
| Profit and loss—surplus..... | 12,720 76      |
|                              | <hr/>          |
|                              | \$2,995,521 35 |

The Morris Canal is 102 miles in length, extending from the Delaware opposite Easton, Pennsylvania, to Jersey City. Its entire tonnage last year was 619,369 tons.

## THE PACIFIC RAILROAD.

The following is a copy of the act to aid in the construction of a railroad and telegraph line from the Missouri River to the Pacific Ocean, and to secure to the government the use of the same for postal, military, and other purposes, as passed by Congress:

*Be it enacted, &c.,* That (1) Walter S. Burgess, William P. Blodgett, Benjamin H. Cheever, Charles Fosdick Fletcher, of Rhode Island; Augustus Brewster, Henry P. Haven, Cornelius S. Bushnell, Henry Hammond, of Connecticut; Isaac Sherman, Dean Richmond, Royal Phelps, William H. Ferry, Henry A. Paddock, Lewis J. Stancliff, Charles A. Secor, Samuel R. Campbell, (2) Alfred E. Tilton, John Anderson, Azariah Boody, John S. Kennedy, H. Carver, Joseph Field, Benjamin F. Camp, Orville W. Childs, Alexander J. Bergen, Ben. Holliday, D. N. Barney, S. DeWitt Bloodgood, Wm. H. Grant, Thomas, W. Olcott, Samuel B. Ruggles, James B. Wilson, of New York; (3) Ephraim Marsh, Charles M. Harker, of New Jersey; John Edgar Thomson, Benjamin Haywood, Joseph H. Scranton, Joseph Harrison, George W. Cass John H. Bryant, Daniel J. Morell, (4) Thomas M. Howe, William F. Johnson, Robert Finney, John A. Green, E. R. Myre, Charles F. Wells, Jr., of Pennsylvania; Noah L. Wilson, Amasa Stone, William H. Clement, S. L. L'Hommedieu, (5) John Brough, William Denison, Jacob Blickensderfer, of Ohio; William M. McPherson, R. W. Wells, Willard P. Hall, Armstrong Beatty, (6) John Corby, of Missouri; S. J. Hensley, Peter Donahue, C. P. Huntington, T. D. Judah, (7) James Bailey, James T. Ryan, Charles Hosmer, Charles Marsh, D. O. Mills, Samuel Bell, Louis McLane, George W. Mowe, Charles McLaughlin, Timothy Dame, John R. Robinson, of California; John Atchison and John D. Winters, of the Territory of Nevada; John D. Campbell, R. N. Rice, Charles A. Trow-

bridge, and Ransom Gardner, (8) Charles W. Penny, Charles T. Gorham, William McConnell, of Michigan; William F. Coolbaugh, Lucius H. Langworthy, Hugh T. Reid, Hoyt Sherman, (9) Lyman Cook, Samuel R. Curtis, Lewis A. Thomas, Platt Smith, of Iowa; William B. Ogden, Charles G. Hammond, Henry Farnum, Amos C. Babcock, W. Seldon Gale, (10) Nehemiah Bushnell, and Lorenzo Bull, of Illinois; William H. Swift, Samuel T. Dana, John Bertram, Franklin S. Stevens, (11) Edward R. Tinker, of Massachusetts; Franklin Gorin, Laban J. Bradford, and John T. Levis, of Kentucky; James Dunning, (12) John M. Wood, Edwin Noyes, Joseph Eaton, of Maine; Henry H. Baxter, (13) Geo. W. Collamer, Henry Keyes, Thomas H. Canfield, of Vermont; William S. Ladd, A. M. Berry, (14) Benjamin F. Harding, of Oregon; William Bunn, Jr., John Catlin, Levi Sterling, (15) John Thompson, Elihu L. Phillips, Walter D. McIndoe, T. B. Soddard, E. H. Broadhead, A. H. Virgen, of Wisconsin, Charles Paine, Thomas A. Morris, David C. Branham, Samuel Hanna, Jonas Votaw, Jesse L. Williams, (16) Isaac C. Elston, of Indiana; Thomas Swan, Chauncey Brooks, Ed. Wilkins, of Maryland; Fr. R. E. Cornell, David Blakely, (17) A. D. Seward, Henry A. Swift, Dwight Woodbury, John McCusick, John R. Jones, of Minnesota; Joseph A. Gilmore, (18) Charles W. Woodman, of New Hampshire; W. H. Grimes, J. C. Stone, Chester Thomas, John Kerr, (19) Werter R. Davis, Luther C. Challis, Josiah Miller, of Kansas; Gilbert C. Monell and Augustus Kountz, (20) T. M. Marquette, William H. Taylor, Alvin Saunders, of Nebraska; (21) John Evans, of Colorado; together with five commissioners to be appointed by the Secretary of the Interior, and all persons who shall or may be associated with them, and their successors, are hereby created and erected into a body corporate and politic in deed and in law, by the name, style, and title of "The Union Pacific Railroad Company;" and by that name shall have perpetual succession, and shall be able to sue and to be sued, plead and be impleaded, defend and be defended, in all courts of law and equity within the United States, and may make and have a common seal; and the said corporation is hereby authorized and empowered to lay out, locate, construct, furnish, maintain, and enjoy a continuous railroad (22) and telegraph, with the appurtenances, from (23) a point on the one (24) hundredth meridian of longitude west from Greenwich, (25) between the south margin of the valley of the Republican River and the north margin of the valley of the Platte River, in the Territory of Nebraska, to the western boundary of Nevada Territory, upon the route and terms hereinafter provided, and is hereby vested with all the powers, privileges, and immunities necessary to carry into effect the purposes of this act as herein set forth. The capital stock of said company shall consist of one hundred thousand shares of \$100,000 each, which shall be subscribed for and held in not (26) more than two hundred shares by any one person, and shall be transferable in such manner as the by-laws of said corporation shall provide. The persons hereinbefore named, (27) together with those to be appointed by the Secretary of the Interior, are hereby constituted and appointed commissioners, (28) and such body shall be called the Board of Commissioners of the Union Pacific Railroad (29) and Telegraph Company, and twenty-five shall constitute a quorum for the transaction of business. The first meeting of said board shall be held at Chicago, at such time as the commissioners from Illinois herein named shall appoint, not more than three nor less than one month after the passage of this act, notice of which shall be given by them to the other com-

missioners by depositing a call therefor in the post-office at Chicago, post paid, to their address at least (30) forty days before said meeting, (31,) and also by publishing said notice in one daily newspaper in each of the cities of Chicago and St. Louis. Said board shall organize by the choice from its number of a president, secretary, and treasurer, and they shall require from said treasurer such bonds as may be deemed proper, and may from time to time increase the amount thereof as they may deem proper. It shall be the duty of said board of commissioners to open books, or cause books to be opened, at such times and in such principal cities in the United States as they, or a quorum of them shall determine, to receive subscriptions to the capital stock of said corporation, and a cash payment of ten per centum on all subscriptions, and to receipt therefor. So soon as two thousand shares shall be in good faith subscribed for, and ten dollars per share actually paid into the treasury of the company, the said president and secretary of said board of commissioners shall appoint a time and place for the first meeting of the subscribers to the stock of said company, and shall give notice thereof in at least one newspaper in each State in which subscription books have been opened at least thirty days previous to the day of meeting, and such subscribers as shall attend the meeting so called, either in person or by proxy, shall then and there elect by ballot not less than thirteen directors for said corporation; and in such election each share of said capital shall entitle the owner thereof to one vote. The president and secretary of the board of commissioners shall act as inspectors of said election, and shall certify under their hands the names of the directors elected at said meeting; and the said commissioners, treasurer, and secretary shall then deliver over to said directors all the properties, subscription books, and other books in their possession, (32) and thereupon the duties of said commissioners and the officers previously appointed by them shall cease and determine forever, and thereafter the stockholders shall constitute said body politic and corporate. At the time of the first and each triennial election of directors by the stockholders, two additional directors shall be appointed by the President of the United States, who shall act with the body of directors, and to be denominated directors on the part of the government; any vacancy happening in the government directors at any time may be filled by the (33) President of the United States. The directors to be appointed by the President shall not be stockholders in the Union Pacific Railroad Company. The directors so chosen shall, as soon as may be after their election, elect from their own number a president and vice-president, and shall also elect a treasurer and secretary. No person shall be a director in said company unless he shall be a bona fide owner of at least five shares of stock in the said company, except the two directors to be appointed by the President as aforesaid. Said (34) company, at any regular meeting of the stockholders called for that purpose, shall have power to make by-laws, rules, and regulations as they shall deem needful and proper, touching the disposition of the stock, property, estate, and effects of the company, not inconsistent herewith, the transfer of shares, the term of office, duties, and conduct of their officers and servants, and all matters whatsoever which may appertain to the concerns of said company; and the said board of directors shall have power to appoint such engineers, agents, and subordinates as may from time to time be necessary to carry into effect the object of this act, and to do all acts and things touching the location and construction of said road (35) and telegraph. Said directors may require payment of subscrip-

tions to the capital stock, after due notice, at such times, and in such proportions as they shall deem necessary to complete the railroad and telegraph within the time in this act prescribed. Said president, vice-president, and directors shall hold their office for three years, and until their successors are duly elected (36) and qualified, or for such less time as the by-laws of the corporation may prescribe; and a majority of said directors shall constitute a quorum for the transaction of business. The secretary and treasurer shall give bonds, with such security, as the said board shall from time to time require, and shall hold their offices at the will and pleasure of the directors. Annual meetings of the stockholders of the said corporation, for the choice of officers, (when they are to be chosen,) and for the transaction of annual business, shall be holden at such time and place and upon such notice as may be prescribed in the by-laws.

SEC. 2. *And be it further enacted*, That the right of way through the public lands be, and the same is hereby granted to said company for the construction of said railroad and telegraph line, and the right, power, and authority is hereby given to said company to take from the public lands adjacent to the line of said road, earth, stone, timber, and other materials for the construction thereof; said right of way is granted to said railroad to the extent of two hundred feet in width on each side of the line of said railroad where it may pass over the public lands, including all necessary grounds for stations, buildings, workshops, and depots, machine shops, switches, side tracks, turn-tables, and water stations. The United States shall extinguish as rapidly as may be the Indian titles to all lands falling under the operation of this act, and required for the said right of way and grants hereinafter made.

SEC. 3. *And be it further enacted*, That there be, and is hereby granted to the said company, for the purpose of aiding in the construction of said railroad and the telegraph line, and to secure the safe and speedy transportation of the mails, troops, munitions of war, and public stores thereon, every alternate section of (37) public land, designated by odd numbers, to the amount of five alternate sections per mile on each side of said railroad, (38) on the line thereof, (39) and within the limits of ten miles on each side of said road, not sold, reserved, or otherwise disposed of by the United States, and to which a pre-emption or homestead claim may not have attached, at the time the line of said road is definitely fixed. Provided, That all mineral lands shall be excepted from the operation of this (40) act; but where the same shall contain timber, the timber thereon is hereby granted to said company. And all such lands, so granted by this section, which shall not be sold or disposed of by said company within three years after the entire road shall have been completed, shall be (41) subject to settlement and pre-emption, like other lands, at a price not exceeding one dollar and twenty-five cents per acre, to be paid to said company.

SEC. 4. *And be it further enacted*, That whenever said company shall have completed forty consecutive miles of any portion of said railroad and telegraph line, ready for the service contemplated by this act, and supplied with all necessary drains, culverts, viaducts, crossings, sidings, bridges, turn-outs, watering places, depots, equipments, furniture, and all other appurtenances of a first-class railroad, the rails and all the other iron used in the construction and equipment of said road (42) to be American manufacture of the best quality, the President of the United States shall appoint three commissioners to examine the same and report to him in relation thereto;



and if it shall appear (43) to him that forty consecutive miles of said railroad and telegraph line have been completed (44) and equipped in all respects as required by this act, then, upon certificates of said commissioners to that effect, patents shall issue conveying the right and title to said lands to said company, (45) on each side of the road as far as the same is completed, to the amount aforesaid; and patents shall in like manner issue as forty miles of said railroad and telegraph line as completed, upon certificate of said commissioners. Any vacancies occurring in said board of commissioners by death, resignation, or otherwise, shall be filled by the President of the United States: (46) Provided, however, That no such commissioners shall be appointed by the President of the United States unless there shall be presented to him a statement, verified on oath by the president of said company, that such forty miles have been completed, in the manner required by this act, and setting forth with certainty the points where such forty miles begin, and where the same end; which oath shall be taken before a judge of a court of record.

SEC. 5. *And be it further enacted.* That for the purposes herein mentioned the Secretary of the Treasury shall, upon the certificate in writing of said commissioners of the completion (47) and equipment of forty consecutive miles of said railroad and telegraph, in accordance with the provisions of this act, issue to said company bonds of the United States of one thousand dollars each, payable in thirty years after date, bearing six per centum per annum interest, (said interest payable semi-annually,) which interest may be paid in United States Treasury notes, or any other money or currency which the United States have or shall declare lawful money and a legal tender, to the amount of sixteen of said bonds per mile for such section of forty miles; and to secure the repayment to the United States, as hereinafter provided, of the amount of bonds so issued and delivered to said company, together with all interest thereon which shall have been paid by the United States, the issue of said bonds and delivery to the company shall *ipso facto* constitute a first (48) mortgage on the whole line of the railroad and telegraph (49) together with the rolling stock, fixtures and property of every kind and description, and in consideration of which said bonds may be issued; and on the refusal or failure of said company to redeem said bonds, or any part of them, when required to do so by the Secretary of the Treasury, in accordance with the provisions of this act, the said road, with all the rights, functions, immunities, and appurtenances thereunto belonging, and also all lands granted to the said company by the United States, which, at the time of said default, shall remain in the ownership of the said company, (50) may be taken possession of by the Secretary of the Treasury for the use and benefit of the United States: *Provided*, This section shall not apply to that part of any road now constructed (51.)

SEC. 6. *And be it further enacted.* That the grants aforesaid are made upon condition that said company (52) shall pay said bonds at maturity, and shall keep said railroad and telegraph line in repair and use, and shall at all times transmit dispatches over said telegraph line, and transport mails, troops, and munitions of war, supplies and public stores upon said railroad for the government, whenever required to do so by any department thereof, and that the government shall at all times have the preference in the use of the same for all the purposes aforesaid, (at fair and reasonable rates of compensation, not to exceed the amounts paid by private parties for the same kind of service;) and all compensation for services rendered for

the government shall be applied to the payment of said bonds and interest until the whole amount is fully paid. Said company may also pay the United States, wholly or in part, in the same or other bonds, Treasury notes, or other evidences of debt against the United States, to be allowed at par; and after said road is completed, until said bonds and interest are paid, at least five per centum of the net earnings of said road shall also be annually applied to the payment thereof.

SEC. 7. *And be it further enacted*, That said company shall file their assent to this act, under the seal of said company, in the Department of the Interior, within one year after the passage of this act, and shall complete said railroad and telegraph from the (53) point of beginning as hereinafter provided, to the western boundary of Nevada Territory before the first day of July, one thousand eight hundred and seventy-four: *Provided*, That within two years after the passage of this act said company shall (54) designate the general route of said road, as near as may be, (55) and shall file a map of the same in the Department of the Interior, whereupon the Secretary of the Interior shall cause the lands (56) within fifteen miles of said designated route or routes to be withdrawn from pre-emption, private entry, and sale; and when any portion of said route shall be finally located, the Secretary of the Interior shall cause the said lands (57) hereinbefore granted to be surveyed and set off as fast as may be necessary for the purposes herein named: *Provided*, That in fixing the point of connection of the main trunk with the eastern connections, it shall be fixed at the most practicable point for the construction of the Iowa and Missouri branches, as hereinafter provided.

SEC. 8. *And be it further enacted*, That the line of the said railroad and telegraph shall commence at (58) a point on the one-hundredth meridian of longitude west from Greenwich, (59) between the south margin of the valley of the Republican river and the north margin of the valley of the Platte river, in the Territory of Nebraska, at (60) a point to be fixed by the President of the United States, after actual surveys; thence running westerly upon the most direct, central, and practicable route, through the territories of the United States, to the western boundary of the Territory of Nevada, there to meet and connect with the line of the Central Pacific Railroad Company of California.

SEC. 9. *And be it further enacted*, That the Leavenworth, Pawnee, and Western Railroad Co., of Kansas are hereby authorized to construct a railroad and telegraph line (61) from the Missouri river, at (62) the mouth of the Kansas river, on the south side thereof, so as to connect with the Pacific Railroad of Missouri, to the aforesaid point, on the one hundredth meridian of longitude west from Greenwich, as herein provided, upon the same terms and conditions in all respects as are provided in this act for the construction of the railroad and telegraph line first mentioned, and to meet and connect with the same at the meridian of longitude aforesaid; and in case the general route or line of road from the Missouri river to the Rocky Mountains should be so located as to require a departure northwardly from the proposed line of said Kansas Railroad before it reaches the meridian of longitude aforesaid, the location of said Kansas road shall be made so as to conform thereto; and said railroad through Kansas shall be so located between (63) the mouth of the Kansas river, as aforesaid, and the aforesaid point, on the one hundredth meridian of longitude, that the several railroads from (64) Missouri and Iowa, herein authorized to connect with the same,

can make connection within the limits prescribed in this act, (65) provided the same can be done without deviating from the general direction of the whole line to the Pacific coast. The route in Kansas, (66) west of the meridian at Fort Riley, to the aforesaid point, on the one hundredth meridian of longitude, to be subject to the approval of the President of the United States, (67) and to be determined by him on actual survey. And said Kansas Company may proceed to build said railroad to the (68) aforesaid point, on the hundredth meridian of longitude west from Greenwich, (69) in the Territory of Nebraska. The Central Pacific Railroad Company of California, the corporation existing under the laws of the State of California, are hereby authorized to construct a railroad and telegraph line from the Pacific coast, at or near San Francisco, or the navigable waters of the Sacramento river, to the eastern boundary of California, upon the same terms and conditions, in all respects, as are contained in this act for the construction of said railroad and telegraph line first mentioned, and to meet and connect with the first-mentioned railroad and telegraph line on the eastern boundary of California. Each of said companies shall file their acceptance of the conditions of this act in the Department of the Interior within six months after the passage of this act.

SEC. 10. *And be it further enacted*, That the said company chartered by the State of Kansas shall complete one hundred miles of their said road, commencing at (70) the mouth of the Kansas river as aforesaid, within two years after filing their assent to the conditions of this act, as herein provided, and one hundred miles per year thereafter until the whole is completed; and the said Central Pacific Railroad Company of California shall complete fifty miles of their said road within two years after filing their assent to the provisions of this act, as herein provided, and fifty miles per year thereafter until the whole is completed; and after completing their roads respectively, said companies, or either of them, may unite upon equal terms with the first-named company in constructing so much of said railroad and telegraph line (71) and branch railroads and telegraph lines in this act hereinafter mentioned, through the Territories from the State of California to the Mississippi river, as shall then remain to be constructed, on the same terms and conditions as provided in this act in relation to the said Union Pacific Railroad Company. And the Hannibal and Saint Joseph Railroad, (72) the Pacific Railroad Company of Missouri, and the first-named company, or either of them, on filing their assent to this act, as aforesaid, may unite upon equal terms, under this act, with the said Kansas company, in constructing said railroad and telegraph to said meridian of longitude, (73) with the consent of the said State of Kansas; and in case said first-named company shall complete their line to the (74) eastern boundary of California before it is completed across said State by the Central Pacific Railroad Company of California, said first-named company is hereby authorized to continue in constructing the same through California, (75) with the consent of said State, upon the terms mentioned in this act, until said roads shall meet and connect, and the whole line of said railroad and telegraph is completed; and the Central Pacific Railroad Company of California, after completing its road across said State, is authorized to continue the construction of said railroad and telegraph (76) through the Territories of the United States to the Missouri river, including the branch roads specified in this act, upon the routes hereinbefore and hereinafter indicated, on the terms and conditions provided in this act in relation to the

said Union Pacific Railroad Company, until said roads shall meet and connect, and the whole line of said railroad and branches and telegraph is completed.

SEC. 11, *And be it further enacted*, that for three hundred miles of said road most mountainous and difficult of construction, to wit: one hundred and fifty miles westwardly from the eastern base of the Rocky Mountains, and one hundred and fifty miles eastwardly from the western base of the Sierra Nevada mountains, (77) said point to be fixed by the President of the United States, the bonds to be issued to aid in the construction thereof shall be treble the number per mile hereinbefore provided, and the same shall be issued, and the lands herein granted be set apart, upon the construction of every twenty miles thereof, upon the certificate of the commissioners as aforesaid that twenty consecutive miles of the same are completed; and between the sections last named of one hundred and fifty miles each, the bonds to be issued to aid in the construction thereof shall be double the number per mile first mentioned, and the same shall be issued, and the lands herein granted be set apart, upon the construction of every twenty miles thereof, upon the certificate of the the commissioners as aforesaid that twenty consecutive miles of the same are completed: *Provided*, that no more than fifty thousand of said bonds shall be issued under this act to aid in constructing the main line of said railroad and telegraph.

SEC. 12. *And be it further enacted*, That whenever the route of said railroad shall cross the boundary of any State or Territory, or said meridian of longitude, the two companies meeting or uniting there shall agree upon its location at that point, with reference to the most direct and practicable through route, and in case of difference between them as to said location, the President of the United States shall determine the said location; the companies named in each state and territory to locate the road across the same between the points so agreed upon, except as herein provided. The track upon the entire line of railroad (78) and branches shall be of uniform width, to be (79) determined by the President of the United States, so that, when completed, cars can be run from the Missouri river to the Pacific coast; the grades and curves shall not exceed the maximum grades and curves of the Baltimore and Ohio Railroad; the whole line of said railroad (80) and branches, and telegraph shall be operated and used for all purposes of communication, travel, and transportation, so far as the public and government are concerned, as one connected, continuous line; and the companies herein named in Missouri, (81) Kansas, and California, filing their assent to the provisions of this act, shall receive and transport all iron rails, chairs, spikes, ties, timber, and all materials required for constructing and furnishing said first-mentioned line between the (82) aforesaid point, on the one hundredth meridian of longitude and western boundary of Nevada Territory, whenever the same is required by said first-named company, at cost, over that portion of the roads of said companies constructed under the provisions of this act.

SEC. 13. *And be it further enacted*, That the Hannibal and St. Joseph Railroad Company of Missouri may extend its road from Saint Joseph (83) *via* Atchison to connect and unite with the road through Kansas, upon filing its assent to the provisions of this act upon the same terms and conditions in all respects, for one hundred miles in length next to the Missouri river, as are provided in this act for the construction of the railroad and telegraph line first mentioned, and may for this purpose, use any railroad charter which has been or may be granted by the Legislature of Kansas;

(84) *Provided*, That if actual survey shall render it desirable, the said company may construct their road, with the consent of the Kansas Legislature, on the most direct and practicable route west from St. Joseph, Missouri, so as to connect and unite with the road leading from the western boundary of Iowa at any point east of the one hundredth meridian of west longitude, or with the main trunk road at said point; but in no event shall lands or bonds be given to said company, as herein directed, to aid in the construction of their said road for a greater distance than one hundred miles. And the Leavenworth, Pawnee, and Western Railroad Company of Kansas may construct their road from Leavenworth to unite with the road through Kansas (85.)

SEC. 14. *And be it further enacted*, That the said Union Pacific Railroad Company is hereby authorized and required to construct a single line of railroad and telegraph from a point on the western boundary of the State of Iowa (86) to be fixed by the President of the United States, upon the most direct and practicable route, (87) to be subject to his approval, so as to form a connection with the lines of said company at some point (88) on the one hundredth meridian of longitude aforesaid, from the point of commencement on the western boundary of the State of Iowa, upon the same terms and conditions, in all respects, as are contained in this act for the construction of the said railroad and telegraph first mentioned; and the said Union Pacific Railroad Company shall complete one hundred miles of the road and telegraph in this section provided for in two years after filing their assent to the conditions of this act, as by the terms of this act required, and at the rate of one hundred miles per year thereafter, until the whole is completed: *Provided*, That a failure upon the part of said company to make said connection in the time aforesaid, and to perform the obligations imposed on said company by this section, and to operate said road in the same manner as the main line shall be operated, shall forfeit to the government of the United States all the rights, privileges, and franchises granted to and conferred upon said company by this act. And whenever there shall be a line of railroad completed through Minnesota or Iowa to Sioux City (89) then the said Union Pacific Railroad Company is hereby authorized and required to construct a railroad and telegraph from said Sioux City upon the most direct and practicable route to a point on, and so as to connect with the branch railroad and telegraph in this section hereinbefore mentioned, or with the said Union Pacific Railroad, said point of junction to be fixed by the President of the United States, not further west than the one hundredth meridian of longitude aforesaid, and on the same terms and conditions as provided in this act for the construction of the Union Pacific Railroad aforesaid, and to complete the same at the rate of one hundred miles per year; and should said company fail to comply with the requirements of this act in relation to the said Sioux City railroad and telegraph, the said company shall suffer the same forfeitures prescribed in relation to the Iowa branch railroad and telegraph hereinbefore mentioned: (90.)

SEC. 15. *And be it further enacted*, That any other railroad company now incorporated, or hereafter to be incorporated, shall have the right to connect their road with the (91) road and branches provided for by this act, at such places and upon (92) such just and equitable terms (93) as the President of the United States may prescribe. Wherever the word company is used in this act, it shall be construed to embrace the words their



associates, successors, and assigns, the same as if the words had been properly added thereto.

SEC. 16. *And be it further enacted*, That at any time after the passage of this act all of the railroad companies named therein, and assenting thereto, or any two or more of them, are authorized to form themselves into a consolidated company; notice of such consolidation, in writing, shall be filed in the Department of the Interior, and such consolidated company (94) shall thereafter proceed to construct said railroad, (95) and branches, and telegraph line upon the terms and conditions provided in this act.

SEC. 17. *And be it further enacted*, That in case said company or companies shall fail to comply with the terms and conditions of this act (96) by not completing said road and telegraph (97) and branches within a reasonable time, or (98) by not keeping the same in repair, and use, but shall permit the same, for an unreasonable time, to remain unfinished, or out of repair, and unfit for use, Congress may pass any act to insure the speedy completion of said road (99) and branches, or put the same in repair and use, and may direct the income of said railroad and telegraph line to be thereafter devoted to the use of the United States, to repay all such expenditures caused by the default and neglect of such company or companies: *Provided*, (100) That if said roads are not completed, so as to form a continuous line of railroad, ready for use, from the Missouri River to the navigable waters of the Sacramento River, in California, by the 1st day of July, 1876, the whole of all of said railroads before mentioned and to be constructed under the provisions of this act, together with all their furniture, fixtures, rolling stock, machine shops, lands, tenements, and hereditaments, and property of every kind and character, shall be forfeited to and be taken possession of by the United States: *Provided*, That of the bonds of the United States in this act provided to be delivered for any and all parts of the roads to be constructed east of the one hundredth meridian of west longitude from Greenwich, and for any part of the road west of the west foot of the Sierra Nevada Mountains, there shall be reserved of each part and instalment twenty-five per centum, to be and remain in the United States Treasury, undelivered, until said road and all parts thereof provided for in this act are entirely completed; and of all the bonds provided to be delivered for the said road, between the two points aforesaid, there shall be reserved out of each instalment fifteen per centum, to be and remain in the treasury until the whole of the road provided for in this act is fully completed; and if said road, or any part thereof, shall fail of completion at the time limited therefor in this act, then and in that case the said part of said bonds so reserved shall be forfeited to the United States.

SEC. 18. *And be it further enacted*. That (101) whenever it appears (102) [thereby] that the net earnings of the entire road and telegraph, including the amount allowed for services rendered for the United States, after deducting all expenditures, including repairs and the furnishing, running, and managing of said road, shall exceed ten per centum upon its cost, exclusive of the five per centum to be paid to the United States, Congress may reduce the rates of fare thereon, if unreasonable in amount, and may fix and establish the same by law. And the better to accomplish the object of this act, namely, to promote the public interest and welfare by the construction of said railroad and telegraph line, and keeping the same in working order, and to secure to the government at all times (but particularly in time of war) the use and benefits of the same for postal, military, and other pur-

poses, Congress may, at any time, having due regard for the rights of said companies named herein, add to, alter, amend, or repeal this act.

(103) [SEC. 19. *And be it further enacted*, That persons in possession of government lands in the Territory of Nevada at the time of the passage of this act, except mineral lands, or who may, under the laws of Congress, have the constructive right to the possession of one hundred and sixty acres, should such lands be conveyed to said railroad company under this act, shall have the right to purchase the same from said company at the same price that the government shall fix for the sale of the adjoining lands.]

(104) SEC. 20. *And be it further enacted*, That the several railroad companies herein named are authorized to enter into arrangements with the Pacific Telegraph Company, the Overland Telegraph Company, and the California State Telegraph Company, so that the present line of telegraph between the Missouri river and San Francisco may be moved upon or along the line of said railroad and branches as fast as said roads and branches are built; and if said arrangement be entered into, and the transfer of said telegraph line be made in accordance therewith to the line of said railroad and branches, such transfer shall, for all purposes of this act, be held and considered a fulfilment on the part of said railroad companies of the provisions of this act in regard to the construction of said line of telegraph. And, in case of disagreement, said telegraph companies are authorized to remove their line of telegraph along and upon the line of railroad herein contemplated without prejudice to the rights of said railroad companies named herein.

(105) SEC. 21. *And be it further enacted*, That the corporation hereby created and the roads connected therewith, under the provisions of this act, shall make to the Secretary of the Treasury an annual report wherein shall be set forth—

First. The names of the stockholders and their places of residence, so far as the same can be ascertained.

Second. The names and residences of the directors, and all other officers of the company.

Third. The amount of stock subscribed, and the amount thereof actually paid in.

Fourth. A description of the lines of road surveyed, of the lines thereof fixed upon for the construction of the road, and the cost of such surveys.

Fifth. The amount received from passengers on the road.

Sixth. The amount received for freights thereon.

Seventh. A statement of the expense of said road and its fixtures.

Eighth. A statement of the indebtedness of said company, setting forth the various kinds thereof. Which report shall be sworn to by the president of the said company, and shall be presented to the Secretary of the Treasury on or before the first day of July in each year.

Attest.

J. W. FORNEY, *Secretary*.

## STATISTICS OF POPULATION.

1. CENSUS OF NEW BRUNSWICK, 1851 AND 1861. 2. PROGRESS OF EDUCATION IN ENGLAND. 3. ENGLISH AND FRENCH NAVIES 4. PASSENGERS ARRIVING IN THE UNITED STATES.

### CENSUS OF NEW BRUNSWICK, 1851 AND 1861.

In the May number of the *Merchants' Magazine*, we gave the official returns in detail of the census of 1861, compared with 1851, of Canada East and West, Nova Scotia, and Prince Edwards Island, together with a general summary of the whole of British North America. The detail returns of New Brunswick had not then been officially published. We are now able to give them, and they will be found below :

| Counties.                | Population,<br>1851. | Population,<br>1861. | Change in<br>10 years. |
|--------------------------|----------------------|----------------------|------------------------|
| Albert .....             | 6,313                | 9,444                | 3,131                  |
| Carleton .....           | 11,108               | 16,373               | 5,265                  |
| Charlotte .....          | 19,938               | 23,663               | 3,725                  |
| Gloucester.....          | 11,704               | 15,076               | 4,372                  |
| Kent.....                | 11,410               | 15,854               | 4,444                  |
| Kings.....               | 18,842               | 23,283               | 4,441                  |
| Northumberland.....      | 15,064               | 18,801               | 3,737                  |
| Queens.....              | 10,634               | 13,359               | 2,725                  |
| Restigouche.....         | 4,161                | 4,874                | 713                    |
| St. John.....            | 38,475               | 48,922               | 10,447                 |
| Sunbury .....            | 5,301                | 6,057                | 756                    |
| Victoria.....            | 5,408                | 7,701                | 2,293                  |
| Westmorland.....         | 17,814               | 25,247               | 7,433                  |
| York.....                | 17,628               | 23,393               | 5,765                  |
| <b>Total .....</b>       | <b>193,800</b>       | <b>252,047</b>       | <b>58,247</b>          |
| Whites—male .....        | 98,454               | 128,593              | 30,139                 |
| “ female.....            | 93,172               | 120,661              | 27,489                 |
| Colored—male.....        | 505                  | 730                  | 225                    |
| “ female.....            | 553                  | 851                  | 298                    |
| Indians—male .....       | 567                  | 625                  | 58                     |
| “ female.....            | 549                  | 587                  | 38                     |
| Families.....            | 31,682               | 40,250               | 8,568                  |
| Sick and infirm .....    | 2,366                | 2,115                | less 241               |
| Deaf and dumb.....       | .....                | 166                  | .....                  |
| Blind.....               | .....                | 172                  | .....                  |
| Insane and idiotic ..... | .....                | 518                  | .....                  |
| Children at school ..... | 18,892               | 31,973               | 13,081                 |
| Births.....              | 6,592                | 8,721                | 2,129                  |
| Marriages.....           | .....                | 905                  | .....                  |
| Deaths.....              | 1,934                | 2,390                | 456                    |

| Age—                                             |             | Change in 10 y'rs. |          |
|--------------------------------------------------|-------------|--------------------|----------|
| Under 6 years . . . . .                          | 85,602      | 45,413             | 9,811    |
| 6 and under 16 years. . . . .                    | 53,324      | 64,880             | 11,552   |
| 16 " 21 " . . . . .                              | 21,991      | 28,913             | 6,922    |
| 21 " 40 " . . . . .                              | 48,650      | 65,700             | 17,050   |
| 40 " 50 " . . . . .                              | 15,305      | 20,113             | 4,808    |
| 50 " 60 " . . . . .                              | 10,598      | 13,312             | 2,714    |
| 60 " 70 " . . . . .                              | 5,618       | 9,153              | 3,535    |
| 70 years and upwards. . . . .                    | 2,588       | 4,563              | 1,975    |
| Not specified. . . . .                           | 124         | .....              | 124      |
| Born in—                                         |             |                    |          |
| New Brunswick. . . . .                           | 153,368     | 199,445            | 46,077   |
| England and Wales. . . . .                       | 3,907       | 4,909              | 1,002    |
| Scotland. . . . .                                | 4,855       | 5,199              | 344      |
| Ireland . . . . .                                | 28,776      | 30,179             | 1,403    |
| Other British Possessions. . . . .               | 1,550       | 8,721              | 7,171    |
| Foreign countries. . . . .                       | 1,344       | 3,594              | 2,250    |
| Roman Catholics. . . . .                         | No returns. | 85,238             | .....    |
| Baptists. . . . .                                | "           | 57,730             | .....    |
| Episcopalians . . . . .                          | "           | 42,776             | .....    |
| Presbyterians. . . . .                           | "           | 36,072             | .....    |
| Methodists. . . . .                              | "           | 25,637             | .....    |
| Other sects. . . . .                             | "           | 4,594              | .....    |
| Males employed. . . . .                          | 39,738      | 70,339             | 30,601   |
| Males in professions . . . . .                   | 456         | 1,304              | 848      |
| Males in trade and commerce . . . . .            | 1,292       | 3,151              | 1,859    |
| Males in agriculture. . . . .                    | 18,601      | 35,001             | 16,400   |
| Males in mechanics. . . . .                      | 6,822       | 11,181             | 4,359    |
| Males at sea and fisheries . . . . .             | 1,454       | 2,765              | 1,311    |
| Males in mining. . . . .                         | 9,448 }     | 164                | 6,083    |
| Males as laborers . . . . .                      |             | 15,267 }           |          |
| Males in other pursuits. . . . .                 | 1,665       | 1,506              | less 159 |
| Houses—inhabited . . . . .                       | 26,369      | 33,700             | 7,331    |
| " uninhabited . . . . .                          | 1,546       | 1,537              | less 9   |
| " in course of erection . . . . .                | 1,394       | 1,695              | 301      |
| Stores, barns, and other build-<br>ings. . . . . | 32,037      | 46,464             | 14,427   |
| Places of worship. . . . .                       | 423         | 565                | 142      |
| Halls—Temperance. . . . .                        | No returns. | 63                 | .....    |
| " Orange. . . . .                                | "           | 25                 | .....    |
| " Masonic. . . . .                               | "           | 10                 | .....    |
| " Mechanics . . . . .                            | "           | 8                  | .....    |
| School houses. . . . .                           | 798         | 968                | 170      |
| Other public buildings. . . . .                  | No returns. | 101                | .....    |
| Coal raised. . . . . tons                        | 2,812       | 18,244             | 15,432   |
| Lime burned. . . . . casks                       | 35,599      | 42,965             | 7,366    |
| Building stone. . . . . tons                     | .....       | 14,080             | .....    |
| Gypsum quarried . . . . .                        | 5,465       | 13,550             | 8,085    |
| Grindstones quarried. . . . No.                  | 58,849      | 42,476             | 16,373   |
| Other minerals . . . . . tons                    | .....       | 408                | .....    |
| Land holders . . . . . No.                       | No returns. | 24,114             | .....    |

|                              |             |              | Change in 10 y'rs. |
|------------------------------|-------------|--------------|--------------------|
| Land held.....acres          | No returns. | 3,787,524    | .....              |
| under cultivation.....       | 643,954     | 885,108      | 241,154            |
| not improved.....            | No returns. | 2,902,416    | .....              |
| Value of land in occupation. | "           | \$31,169,946 | .....              |
| Land—acres in grass.....     | "           | 288,401      | .....              |
| wheat.....                   | "           | 20,112       | .....              |
| barley.....                  | "           | 5,227        | .....              |
| oats.....                    | "           | 96,268       | .....              |
| buckwheat.....               | "           | 41,936       | .....              |
| Indian corn.....             | "           | 635          | .....              |
| rye.....                     | "           | 3,944        | .....              |
| turnips.....                 | "           | 3,310        | .....              |
| potatoes.....                | "           | 37,667       | .....              |
| carrots.....                 | "           | 196          | .....              |
| Crops—                       |             |              |                    |
| Tons of hay.....             | 225,093     | 324,160      | 99,067             |
| Bushels of wheat.....        | 206,635     | 279,775      | 73,140             |
| barley.....                  | 74,300      | 94,679       | 20,379             |
| oats.....                    | 1,411,164   | 2,655,883    | 1,245,719          |
| buckwheat.....               | 689,004     | 904,321      | 215,317            |
| Indian corn.....             | 62,225      | 17,420       | less 44,805        |
| rye.....                     | No returns. | 57,504       | .....              |
| turnips.....                 | 539,803     | 634,364      | 94,561             |
| potatoes.....                | 2,792,394   | 4,041,339    | 1,248,945          |
| carrots.....                 | } 47,880 {  | 43,870       | } 2,710            |
| mangel wurtzel.....          |             | 6,720        |                    |
| beans.....                   | } 42,663 {  | 5,228        | } less 11,986      |
| peas.....                    |             | 25,449       |                    |
| timothy seed.....            | No returns. | 7,321        | .....              |
| Pounds of turnip seed.....   | "           | 1,851        | .....              |
| of clover seed.....          | "           | 16,985       | .....              |
| of flax seed.....            | "           | 14,057       | .....              |
| maple sugar.....             | 350,957     | 230,006      | less 120,951       |
| Horses.....                  | 22,044      | 35,347       | 13,303             |
| Milch cows.....              | 50,955      | 60,437       | 9,482              |
| Working oxen.....            | } 106,263 { | 19,111       | } less 14,238      |
| Other cattle.....            |             | 72,914       |                    |
| Sheep.....                   | 168,038     | 214,092      | 46,054             |
| Swine.....                   | 47,932      | 73,995       | 26,063             |
| Pork slaughtered.....lbs.    | No returns. | 3,692,169    | .....              |
| Butter produced.....         | 3,050,939   | 4,591,477    | 1,540,438          |
| Cheese produced.....         | No returns. | 218,067      | .....              |
| Honey produced.....          | "           | 32,739       | .....              |
| Beeswax produced.....        | "           | 842          | .....              |
| Wool produced.....           | "           | 633,757      | .....              |
| Home-made goods.....         | "           | 711,394      | .....              |
| Saw mills—steam.....         | } 584 {     | 80           | } 305              |
| water.....                   |             | 609          |                    |
| Grist mills—steam.....       | } 261 {     | 6            | } 89               |
| water.....                   |             | 273          |                    |
| Flouring mills—water.....    |             | 71           |                    |



|                               |             |             |             |
|-------------------------------|-------------|-------------|-------------|
| Tanneries—steam.....          | } 125 {     | 22          | } 1         |
| water.....                    |             | 10          |             |
| hand.....                     |             | 94          |             |
| Foundries—steam.....          | 11          | 21          | 10          |
| Weaving and carding mills..   | 52          | 70          | 18          |
| Hand looms.....               | 5,475       | 5,134       | less 341    |
| Breweries.....                | 8           | 9           | 1           |
| Ale and beer.....gallons      | 100,975     | 329,040     | 228,065     |
| Distilleries.....             | .....       | 1           | 1           |
| Spirits.....gallons           | .....       | 3,000       | 3,000       |
| Other factories—steam.....    | } 94 {      | 31          | } less 27   |
| water.....                    |             | 36          |             |
| Leather produced.....         | \$225,825   | \$290,548   | \$64,723    |
| Saddlery produced.....        | .....       | 77,750      | 77,750      |
| Boots and shoes produced..    | 446,835     | 381,717     | less 65,118 |
| Hats produced.....            | 31,800      | 50,500      | 18,700      |
| Soap produced.....            | 97,810      | 74,000      | less 23,810 |
| Candles produced.....         | 99,300      | 68,300      | less 31,000 |
| Furniture produced.....       | 67,360      | 117,593     | 50,233      |
| Wooden ware produced....      | 102,525     | 129,158     | 26,633      |
| Iron castings produced.....   | 100,125     | 202,500     | 102,385     |
| Machinery produced.....       | No returns. | 193,111     | .....       |
| Oil, crude & refined produced | "           | 72,429      | .....       |
| Other manufactures produced   | "           | 712,000     | .....       |
| Total manufactures produced.  | "           | 2,419,684   | .....       |
| Fish—pickled, dried, etc....  | 414,160     | 518,531     | 104,371     |
| Imports.....                  | \$4,077,655 | \$7,080,170 | \$3,002,515 |
| Exports.....                  | 3,290,090   | 5,367,110   | 2,077,020   |

#### PROGRESS OF EDUCATION IN ENGLAND.

Twenty years ago only 67 in every 100 men that married in England signed their names upon the register, and 51 in every 100 women, and 13 years later the percentage was but 69.6 of the men and 56.1 of the women; but in the last seven years, a period which probably shows in its marriages the result chiefly of the education of the years 1840-45, or thereabouts, the advance has been much greater, and the registrar-general reports that in 1860 the proportion of men writing their names had risen to 74.5, and women to 63.8. In the whole 20 years the proportion of men who write has risen from being only two thirds to three-fourths, and of women from being a half to be nearly two-thirds, which may be expressed with tolerable accuracy by saying that where four persons had to "make their mark" then, only three do so now. This is for all England; but the rate of progress has not been the same in every part of the kingdom. In Staffordshire the 40 per cent of women able to write 20 years ago has only become 48, and the 57 per cent of men 60. Among the Cornishmen the 64 per cent of twenty years since has barely improved into 65; and in 1860 scarcely 57 per cent of the women who married wrote their names. In Monmouthshire and Wales the proportion of women who had learnt to write was much fewer; in South Wales only 42 per cent. In as many as twenty counties in England, mostly agricultural districts, and also in Wales, the proportion of men who can write is below the average, often greatly be-

low it. Of the women who, in 1860 married in Bedfordshire, only 64·8 per cent signed the register; in the West Riding only 53·4; in Lancashire only 45·9. Of the women of England who became wives in 1860 more than 60,000 have the disadvantage of being unable to write their own names; more than 13,000 even of the women of busy and acute Lancashire. In one marriage in every six in all England both man and woman were unable to write.

#### ENGLISH AND FRENCH NAVIES.

The following are the official statements of the size and condition of the English and French navies:

A RETURN SHOWING THE NUMBER OF STEAM SHIPS AFLOAT AND BUILDING, TOGETHER WITH THE NUMBER OF EFFECTIVE SAILING SHIPS IN THE ENGLISH NAVY ON THE 1ST FEBRUARY, 1862.

| Class of ships.                  | Steam.  |               |        | Effective sailing ships afloat. | Total steam and sailing. |
|----------------------------------|---------|---------------|--------|---------------------------------|--------------------------|
|                                  | Afloat. | Building.     | Total. |                                 |                          |
| Ships of the line.....screw      | 57      | 4*            | 61     | 9                               | 70                       |
| Frigates .....                   | 37      | { 2†<br>5* }  | 44     | 14                              | 67                       |
| Frigates.....paddle              | 9       | ..            | 9      | ..                              | ..                       |
| Block ships .....                | 9       | ..            | 9      | ..                              | 9                        |
| Iron-cased ships .....           | 4       | 11            | 15     | ..                              | 15                       |
| Corvettes.....                   | 20      | 4             | 24     | ..                              | 24                       |
| Sloops.....                      | 41      | 7             | 48     | 7                               | 88                       |
| Sloops.....paddle                | 33      | ..            | 33     | ..                              | ..                       |
| Small vessels.....               | 19      | ..            | 19     | ..                              | 19                       |
| Dispatch vessels.....            | ..      | 4             | 4      | ..                              | 4                        |
| Gun-vessels .....                | 31      | 4             | 35     | ..                              | 35                       |
| Gunboats.....                    | 185     | { 8<br>4* }   | 197    | ..                              | 197                      |
| Tenders.....                     | 5       | ..            | 5      | 1                               | 6                        |
| Tenders.....paddle               | 44      | ..            | 44     | ..                              | 50                       |
| Mortar ships.....screw           | 4       | ..            | 4      | ..                              | 4                        |
| Floating batteries.....          | 7       | ..            | 7      | ..                              | 7                        |
| Troop and store ships.....       | 13      | 2             | 15     | ..                              | 17                       |
| Troop and store ships.....paddle | 12      | ..            | 2      | ..                              | ..                       |
| Yachts .....                     | 1       | ..            | 1      | ..                              | ..                       |
| Yachts .....                     | 4       | ..            | 4      | ..                              | 5                        |
| Mortar vessels and floats.....   | ..      | ..            | ..     | 79                              | 79                       |
| Total screw .....                | 414     | { 38<br>13* } | 465    | ..                              | ..                       |
| Total paddle .....               | 111     | 4             | 115    | ..                              | ..                       |
| Grand total .....                | 525     | 55            | 580    | 110                             | 690                      |

#### STATE OF FRENCH STEAM NAVY, JANUARY 1, 1862.

| Class.                | Afloat. | Building. | Total. | Class.               | Afloat. | Building. | Total. |
|-----------------------|---------|-----------|--------|----------------------|---------|-----------|--------|
| Ships of the line.... | 36      | 1         | 37     | Avisos, paddle†....  | 85      | 8         | 93     |
| Frigates, iron-plated | 6       | 10        | 16     | Iron-plated floating |         |           |        |
| screw ....            | 24      | 5         | 29     | batteries.....       | 12      | 2         | 14     |
| paddle ...            | 18      | ..        | 18     | Gunboats.....        | 53      | 5         | 58     |
| Corvettes, screw....  | 7       | ..        | 7      | Transports. ....     | 34      | 9         | 43     |
| paddle... ..          | 9       | ..        | 9      |                      |         |           |        |
| Avisos, screw.....    | 35      | 1         | 36     | Total.....           | 319     | 41        | 360    |

\* The building of these vessels have been suspended.

† Includes Constance, whose conversion to a screw ship is not yet completed.

‡ Five of these are small vessels built in compartments, and can be taken to pieces for the purpose of easy transport.

## IN COMMISSION.

|                            |     |                     |     |
|----------------------------|-----|---------------------|-----|
| Ships of the line .....    | 14* | Avisos, screw ..... | 26  |
| Frigates, iron-plated..... | 4   | paddle.....         | 58  |
| screw .....                | 14  | Gunboats.....       | 15  |
| paddle.....                | 6   | Transports.....     | 26  |
| Corvettes, screw.....      | 3   |                     | —   |
| paddle .....               | 6   | Total.....          | 172 |

## STATE OF FRENCH SAILING NAVY, JANUARY 1, 1862.

| Class.              | Afloat. | Building. | Total. | Class.           | Afloat. | Building. | Total. |
|---------------------|---------|-----------|--------|------------------|---------|-----------|--------|
| Ships of the line.. | 7       | .         | 7      | Small vessels... | 26      | .         | 26     |
| Frigates .....      | 23      | .         | 23     | Transports.....  | 32      | .         | 32     |
| Corvettes.....      | 12      | 1         | 13     |                  | —       | —         | —      |
| Brigs.....          | 19      | 2         | 21     | Total.....       | 119     | 3         | 122    |

## IN COMMISSION.

|                        |    |                    |    |
|------------------------|----|--------------------|----|
| Ships of the line..... | 1† | Small vessels..... | 23 |
| Frigates.....          | 9  | Transports.....    | 22 |
| Corvettes.....         | 3  |                    | —  |
| Brigs.....             | 5  | Total.....         | 63 |

The steam navy of the two countries, on which the principal dependence must be placed by both sides, is as follows :

|                                                  |     |
|--------------------------------------------------|-----|
| Total steam navy of England built and building.. | 580 |
| Total steam navy of France built and building... | 360 |
|                                                  | —   |
| Difference in favor of England.....              | 220 |

whereas an excess of 180 would be adequate for our purpose. In ships of the line, England has, (including block ships,) 85 against France 37. In frigates, a most important kind of vessel now-a-days for the protection of commerce, the account stands :

|                                          |    |
|------------------------------------------|----|
| English frigates built and building..... | 67 |
| French frigates built and building.....  | 63 |
|                                          | —  |
| Difference only.....                     | 4  |

## IN GUNBOATS.

|                                                       |     |
|-------------------------------------------------------|-----|
| The number of English gunboats built and building is. | 197 |
| The number of French gunboats built and building is.  | 58  |
|                                                       | —   |
| Excess.....                                           | 139 |

Of iron-plated vessels, the figures given in these papers do not correspond with those given by Lord PALMERSTON, either as far as respect the English navy or the French. He said the French had 36, and the English 25. The returns give :

## FRENCH.

|            |   |               |    |            |    |
|------------|---|---------------|----|------------|----|
| Built..... | 6 | Building..... | 10 | Total..... | 16 |
|------------|---|---------------|----|------------|----|

\* Two of which for gunnery instruction.

† Hospital ship in China.

and they can only be raised to the number mentioned by Lord PALMERSTON, by including

|                                                   |    |
|---------------------------------------------------|----|
| Floating batteries mentioned in the return.....   | 14 |
| Seven additional mentioned in a subsequent return | 7  |
|                                                   | 21 |

On the other hand, the English list only gives 15 iron-cased ships, whereas it is said she now has 25, though some of these too *may* be floating batteries. *Even now*, therefore, we have no adequate information upon this material item.

#### PASSENGERS ARRIVING IN THE UNITED STATES.

The annual report of the Secretary of State of the number, &c., of passengers arriving in the United States during the year ending December 31, 1861, is just published. The tables furnished are very unsatisfactory, the usual summary being omitted. After wandering through the long columns of figures, we are able to present the following totals:

|                                              | Males. | Females. | Total.  |
|----------------------------------------------|--------|----------|---------|
| Total arrivals in United States in 1861..... | 70,729 | 41,946   | 112,675 |
| Arrivals of citizens of United States.....   | 15,664 | 4,926    | 20,890  |
| Arrivals of foreigners.....                  | 55,065 | 37,020   | 92,085  |

We have prepared from former reports, as published each year in the *Merchants' Magazine*, the following comparative tables:

#### THE NUMBER OF ARRIVALS FROM THE UNITED STATES SINCE 1790.

| Number. Per annum. |                   | Number. Per annum.  |                   |
|--------------------|-------------------|---------------------|-------------------|
| 1790 to 1810...    | 120,000 12,000    | 1850 to 1860...     | 3,320,366 332,036 |
| 1810 to 1820...    | 114,000 11,400    | 1860 to 1862...     | 215,296 107,648   |
| 1820 to 1830...    | 203,979 20,397    |                     |                   |
| 1830 to 1840...    | 778,500 77,850    | Total, 1790 to 1862 | 6,295,991         |
| 1840 to 1850...    | 1,542,850 154,285 |                     |                   |

Thus it will be seen, that during the twelve years, from 1850 to 1862, many more passengers arrived than during the whole of the sixty preceding years. The largest arrivals were from the year 1850 to 1857. Since 1857 the number each year has been much less, as will be seen from the following table:

#### STATEMENT OF THE NUMBER OF PASSENGERS ARRIVING IN THE UNITED STATES BY SEA FROM FOREIGN COUNTRIES, FROM DECEMBER 31, 1850, TO DECEMBER 31, 1861.

|                                              |  | Number. |
|----------------------------------------------|--|---------|
| December 31, 1850, to December 31, 1851..... |  | 468,828 |
| “ “ 1851, to “ “ 1852.....                   |  | 397,348 |
| “ “ 1852, to “ “ 1853.....                   |  | 400,982 |
| “ “ 1853, to “ “ 1854.....                   |  | 460,474 |
| “ “ 1854, to “ “ 1855.....                   |  | 230,476 |
| “ “ 1855, to “ “ 1856.....                   |  | 224,496 |
| “ “ 1856, to “ “ 1857.....                   |  | 271,558 |
| “ “ 1857, to “ “ 1858.....                   |  | 144,906 |
| “ “ 1858, to “ “ 1859.....                   |  | 155,509 |
| “ “ 1859, to “ “ 1860.....                   |  | 103,621 |
| “ “ 1860, to “ “ 1861.....                   |  | 112,675 |

## JOURNAL OF INSURANCE.

1. DAMAGES FROM PETROLEUM—ACTION OF THE COMMON COUNCIL OF BROOKLYN TOO HASTY—PROTEST OF MERCHANTS. 2. MUTUAL LIFE INSURANCE COMPANY.

DAMAGES FROM PETROLEUM—ACTION OF THE COMMON COUNCIL OF BROOKLYN TOO HASTY—PROTEST OF MERCHANTS.

OUR fire insurance companies feel that the destructive fire in Williamsburgh should incite everywhere city authorities to enact rules for the storage of petroleum, kerosene, and the other inflammable oils which have, within a few years, become so important an article of commerce. The utmost care is necessary in handling these substances, and city ordinances ought to provide regulations that will ensure safety, and penalties for their violation by all who store them. If the wind had been westerly, at the time of the fire, the greater part of Williamsburgh would most likely have been destroyed, and this through the carelessness of some person while handling petroleum, which was unloading from a lighter alongside a dock on which a great quantity of the same exceedingly combustible oil was stored. We are told that a cask fell and broke open; the gases arising from the spilled oil caught fire, as is reported, from a lighted cigar in the mouth of a laborer on the vessel, and in an instant the lighter was in flames. As the flames reached the remainder of her cargo, barrel after barrel exploded, increasing the fierceness of the flames, which presently caught on the dock and spread destruction all around.

Yet, although our authorities should undoubtedly examine into this matter and make stringent regulations respecting the storage of petroleum, still there can be no doubt in the mind of any but that every privilege and facility, "consistent with the safety of adjoining interests," should be afforded this important and growing trade. Under the influence of such an accident as that at Williamsburgh, there is danger of acting too hastily and without proper consideration and regard for the heavy interests involved. We think the course taken by the Common Council of Brooklyn is open to this criticism. It may be *necessary* to pass equally stringent regulations, but in our opinion the necessity for it has not yet been shown. One fire certainly does not prove it. Let there be such an investigation of the subject as the great interests at stake demand and are entitled to, before we adopt such sweeping measures. The following is the ordinance adopted by the Brooklyn Common Council:

## ORDINANCE.

An ordinance to prohibit the storage of crude petroleum, rock or earth oil, and to regulate the vending the same where refined, within the limits of the city of Brooklyn.



The Common Council of the city of Brooklyn do ordain as follows:

SEC. 1. It shall not be lawful for any person to store or receive on storage within the limits of the city of Brooklyn, except as provided in section 3 of this ordinance, any crude petroleum, rock or earth oil, under the penalty of \$10 for each barrel, and for each and every day the same shall be stored, the penalty to be recovered from the owner or owners thereof, or from the party or parties storing or receiving the same on storage.

SEC. 2. Any person or persons owning or having on storage any petroleum, rock or earth oil, within the limits of the city of Brooklyn, shall cause the same to be removed within twenty days from the passage of this ordinance, under the penalty of \$500 for each and every day thereafter until full compliance with the provisions hereof.

SEC. 3. It shall not be lawful for any person or persons to keep at any one time, either for use or for the purpose of manufacture, within the limits of city of Brooklyn, an amount exceeding twenty barrels of crude petroleum, rock or earth oil, and then only in sheds or open ground situate not less than 1,000 feet from any other building, and not less than 200 feet from any dock or pier, under the penalty of \$250 for each and every offense, and for each and every day he or they shall so continue to keep the same.

SEC. 4. No person or persons shall hereafter keep, sell, or dispose in any way, within the limits of the city of Brooklyn, any rectified petroleum, rock, or earth oil, commonly designated by the name of kerosene oil, which contains benzine or naphtha, or both, in quantities sufficient to ignite at a temperature of 100° Fah.; and no such oil shall be kept or sold of less density than 45½° Reaumer, under the penalty of \$500 for the first offence, and a like penalty, or imprisonment for six months in the county jail, or both, at the discretion of the magistrate before whom a conviction shall be had, for every offense thereafter.

SEC. 5. It is hereby made the duty of the fire wardens in the city of Brooklyn to examine into and make complaint to any jurisdiction of the subject matter, of any and all violations of this ordinance; and all penalties collected upon complaint made by said fire wardens, one-half thereof shall be paid over to the Widows' and Orphans' Fund of the Fire Department in the District in which the violation of the ordinance shall occur.

At the same meeting a motion was made and adopted, that the joint fire committee be instructed to hear the views and objections, if any be offered, by parties interested in this business, to the operation of this law, and report the same to the Board.

Thus, it would seem that this action was not intended to be final.

On the 10th of June a large and enthusiastic meeting was held by the dealers in petroleum oil, at 34 Pine-street, in the room lately occupied as the Traders and Mechanics' Exchange, to take into consideration the above ordinance, in reference to the storage of this article within the city limits of Brooklyn. The ordinance in question, being calculated to affect the trade most injuriously, it was deemed an act of justice due to themselves to make an effort to induce the Common Council to re-consider its resolve. Mr. A. C. FERRIS was President, and Mr. J. WALES Secretary of the meeting. Remarks were made by the Chairman and Secretary, and also Professor JERLEY, after which it was—

*Resolved*, That the ordinance of the Common Council of Brooklyn, passed June 2, 1862, in regard to the storage and manufacture of petroleum oil within the limits of that city, we think, was made without proper inquiry in regard to the heavy interests involved.

*Resolved*, That the demand for the crude oil and its products having become a matter of inquiry and demand from all parts of the civilized world, and being an article of large export as well as home use, we think the Hon. Aldermen should give to this trade every privilege consistent with the safety of adjoining interests, and afford us such facilities as this important and growing trade requires.

*Resolved*, That a committee of five be appointed by this meeting, to wait upon the committee appointed by that honorable body, for conference in regard to these interests.

The committee consisted of Messrs. J. G. WILLIAMS, B. O. KETCHUM, T. G. STEARNS, I. P. RUST, and M. J. FRISBIE—(also, A. C. FERRIS and J. WALES, ex-officio.) The committee to take charge of the interests involved, with authority to take such action as may be required, and to call future meetings.

We trust the subject will receive the consideration it deserves, before it is finally disposed of.

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#### MUTUAL LIFE INSURANCE COMPANY.

All of us were brought up to believe that corporations have no soul. We wish now, however, to make a record of the fact that the idea is exploded. Still, we cannot yet believe that the converse of the proposition is true—that *all* corporations have souls. The true guide to a correct decision on this point is, in our opinion, this—that where a corporation has a warm hearted President, the body corporate itself partakes and becomes a part of his enlarged humanity.

We think the following note to the Sanitary Commission illustrates this proposition:

THE MUTUAL LIFE INSURANCE Co., }  
94 Broadway, New York, May 17, 1862. }

*J. S. Newberry, M. D., Resident Secretary of the Western Department of the United States Sanitary Commission, Cleveland, Ohio.*

DEAR SIR: In compliance with the instructions of our trustees, I have the gratification to enclose our check, payable to your order, for \$1,000, to be used in the humane and patriotic work of relieving the sick and wounded of our army, in which yourself and your associates are so zealously and efficiently laboring. I am, with much respect,

Your obedient servant,

F. R. WINSTON, President.

## NAUTICAL INTELLIGENCE.

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### 1. COENTIES REEF. 2. THE WOLF ROCK LIGHTHOUSE.

#### COENTIES REEF.

THE Submarine Engineering Company have obtained from the city government of New York the privilege of postponing the completion of their work on Coenties Reef until next spring. This postponement is made necessary, and fully justified, by the useful services which the company are now performing for the United States Government in the department of North Carolina, and which require all their spare diving bells and best engineers. It is believed that the interests of commerce will not suffer to any appreciable extent from this delay in the removal of Coenties Reef. Portions of the rock have been blasted off to the specified depth of twenty feet below low water, and the remainder has been reduced from sixteen to fourteen feet. This is a decided improvement, and will permit the free passage of a large number of vessels which formerly could not get over the reef. With regard to ships of large draught, pilots must exercise their usual caution in steering clear of it. With ordinary care accidents may be avoided.

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#### THE WOLF ROCK LIGHTHOUSE.

Midway between the Lizard Point and the Scilly Islands, at a distance of about two and twenty miles from each, lies a dangerous rock called the Wolf. It is about 58 yards long and 38 yards broad at low water; bold and steep on all sides. The set of the tides in the locality varies towards every point of the compass in the course of twelve hours; ordinary springs run very rapidly, and during S.W. gales and stormy weather, there are furious eddies, making it very hazardous to approach within a considerable distance of the rock; the rise of tide at such times is also full ten feet above the ordinary springs. The sea runs terrifically, as with the full force of the swell of the Atlantic it precipitates itself against the rock. In calm weather the noise is heard at a great distance.

It will be easily imagined that this rock is very difficult of access, except in very fine weather. It was only after long, patient, and per-evering toil, that the attendant difficulties were surmounted about twenty years ago, and a beacon was completed, having the centre of its globe 24 feet above the level of the sea at high water. Portions of the wrecks of several vessels jammed into the interstices of the rock were discovered, and told a fearful tale of the loss of life and property on this treacherous rock.

It was found that the beacon was so frequently completely buried in the waves that to make it effective it would be necessary to give it greater elevation. In 1848 the stone beacon was cased outside with thick iron plates, (perforated,) and a new iron mast and globe erected, with the centre ten feet higher than the former one. The total cost incurred in the erection of this beacon, with the last improvements, was £11,298 4s. 1d.

It has long been desired that a lighthouse should be substituted for this beacon, and in the course of last autumn steps were taken by the Trinity Corporation for commencing operations on the Wolf. The premises of Messrs. BOLITHO, at Penzance, being found suitable for a building yard, and furnished with all other necessary accommodation, were rented, and shortly afterwards MR. JAMES DOUGLAS commenced his new undertaking. Owing to a long prevalence of weather unsuitable for working on the rock, the principal operations have hitherto been preparatory; but as summer comes on the work will be prosecuted with that energy and sagacity for which the family, who have for many years been employed in the erection of rock lighthouses, are eminently distinguished.

The diameter of the base will be 40 feet; over nine-tenths of this space the rock has to be squared down to 3 ft. 6 in. below the level of the upper point of the rock, and over the remaining tenth of the diameter 1 ft. 6 in. deeper, so that the lower courses will be built five feet in the solid rock, and sixteen feet below the level of high water springs. The first nineteen courses bringing the tower up to 38 feet from the base, will be of solid granite, the diameter of each succeeding course being reduced by 9 inches, that of the tower at the above elevation is reduced to 25 feet at this level, and on the south-east side of the tower will be the entrance door, made of strong metal, fitting so exactly as to be impervious to water, and capable of resisting the utmost impetuosity of the waves. The ascent to the door is by thirty-six metal steps, built in with the solid granite. From the level of this entrance door, a circular staircase, left out of the centre of the solid, leads to the water-room, the door of which forms a landing place for stores. The thickness of the walls of the six rooms above the solid decrease gradually from six to two feet, the height of each room being ten feet, with each stone floor forming an arch overhead, and nine inches thick—all granite.

In the store-room is a crane for hoisting in the supplies,—this is ingeniously contrived to launch out, when required, and when not in use it is completely housed, leaving the aperture through which it slides impenetrable by water. The parapet will project two feet, forming a gallery 3ft. 6 in. round the lantern, with a strong metal rail surrounding it.

The lantern will be 19 feet high and 14 feet in diameter, resting on a five feet pedestal, and surmounted by a five feet cowl and four feet gilt vane. The roof and frame-work of the lantern are of gun-metal. The centre of the lantern is to be 110 feet above the high water spring tides. The crest of the waves, however, will frequently go clean over it, as proof of which, the fog-bell affixed to the gallery of the Bishop Rock Lighthouse—one hundred feet above the level of high water mark—was broken off by the sea in a heavy gale of wind during the winter of 1860. The part from which it was broken will be amongst the remarkable curiosities at the great Exhibition this year.—*Plymouth Paper.*

## MERCANTILE MISCELLANIES.

1. "I DON'T LIKE MY BUSINESS." 2. VIOLENT DEATHS IN ENGLAND AND WALES.

## "I DON'T LIKE MY BUSINESS."

THERE is no greater fallacy in the world than that entertained by many young men, that some pursuit in life can be found wholly suited to their tastes, whims, and fancies. This philosopher's stone can never be discovered; and every one who makes his life a search for it will be ruined. Much truth is contained in the Irishman's remark: "It is never asy to work hard." Let, therefore, the fact be always remembered by the young, that no life-work can be found entirely agreeable to a man. Success always lies at the top of a hill; if we would reach it, we can do so only by hard, persevering effort, while beset with difficulties of every kind. Genius counts for nothing in the battle of life! determined, obstinate, perseverance in one single channel, is everything. Hence, should any one of our young readers be debating in his mind a change of business, imagining he has a genius for some other, let him at once dismiss the thought as he would a temptation to do evil. If you think you made a mistake in choosing the pursuit or profession you did, don't make another by leaving it. Spend all your energies in working for, and clinging to it, as you would to the life-boat that sustained you in the midst of the ocean. If you leave it, it is almost certain that you will go down! but if you cling to it, informing yourself about it until you are its master, bending your every energy to the work, success is certain. Good, hard, honest effort, steadily persevered in, will make your love for your business or profession grow. Since no one should expect to reach a period when he can feel that his life-work is just the one he could have done best and would have liked best. We are allowed to see and feel the roughness in our own pathway, but not in others'. Yet all have them.

## VIOLENT DEATHS IN ENGLAND AND WALES.

In the year 1860, for which the returns have just been issued, 14,775 persons in England and Wales died a violent death—one person in every 1,328. Nearly 13,000 of the deaths are ascribed to accident or negligence; among them 5,417 were caused by fractures and contusions, 1,061 by suffocation, (700 at not a year old), 2,264 by drowning, and 3,166 by burns and scalds. The exposure of men to fire in coal mines and works causes their deaths from burns during the prime of life to outnumber those of women, notwithstanding the more combustible dress of the latter, but after 55 the deaths of women from this cause are more than double those of men, and, says Dr. Farr, the old women who are now burnt to death far exceed in numbers those who in cruel times were burnt as witches. In 1860, at least 1,365 persons wilfully sought their own destruction, one in 14,286 of the population; but there is no doubt that many suicides by drowning are classed as accidental deaths.



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