

# THE BANK OF ENGLAND.

ITS 200TH ANNIVERSARY WAS CELEBRATED LAST FRIDAY.

The Three Institutions of which it Really Consists—How a Director Made the Bank Lose \$150,000 by his Carelessness.—Some Interesting Figures as to the Business Done in the World's Greatest Bank.

A London correspondent writes:—The Bank of England will reach on July the 27th the 200th anniversary of its birth. For two centuries it has been as it is to-day, the greatest bank in the world. It began business on July 27, 1694, in a small edifice occupying the centre of the Threadneedle-street side of the present structure, with a capital of \$6,000,000, which had been promptly loaned to the Government by a group of city merchants to meet the pressing necessities of King William. In return for this loan, Parliament passed an act "levying new duties on the tonnage for the benefit of such loyal persons as should advance money for carrying on the campaign against the Dutch." This enactment created the institution and gave to the "Governor and company of the bank of England" a peculiarly favorable charter, which has been from time to time renewed, modified and systematized, though its original fundamental idea has never been changed.

The relation thus established between the Government and the bank was peculiar, but that it has proved successful is evinced by its continued extension. The debt originally owed to the bank by the government has increased in the lapse of two centuries from \$6,000,000 to \$55,000,000, with interest at 2½ per cent. per annum. The bank building has expanded until it now covers the whole area between Threadneedle Street, Princes Street, Lothbury and Bartholomew Lane, a space of nearly four acres, upon which its windowless, brown-stone wall—only one story in height, rise with an aspect of massive impenetrability. This sense of the majesty of many millions is further reflected in all the crooked and narrow streets round about. One hundred and fifty banks and hundreds of business enterprises of world-wide fame are crowded together in the centre of the city of London, all located as near the bank as possible. The visible wealth in securities and other assets here collected in a space not more than half a mile square, easily exceeds \$8,000,000,000, the greatest aggregation of riches in a small centre that the world has ever seen.

**A THREEFOLD INSTITUTION.**  
Under the general name of the Bank of England have been grouped, ever since its start, three separate institutions, each of which has been complete in itself and distinct in its operations from any other since the passage of the act of 1844. These are, first, "The National-debt Department," which occupies the Bartholomew-lane side and conducts the issue of all Government loans and the payment of dividends on its own stock on national bonds and other securities controlled by the bank. The second is the Issue Department, occupying the centre of the Threadneedle side, and having for its scope the issue of bank notes, their printing, cancellation and redemption, and the numberless transactions in the issue and receipt of the gold coin and bullion by which the note issue is mainly guaranteed. The third is the Government and General Banking Department, on the Princes-street side, in which all the banking functions of a national treasury and the ordinary business of an ordinary commercial bank are separately carried on.

**THE ISSUE DEPARTMENT.**  
After passing through the main entrance in Threadneedle Street you come upon an inner court guarded by a gorgeous functionary in a black velvet cocked hat and a long gown of braided scarlet, who has something of the gaudiness of a Brazilian parrot, but is much less inclined to enter into conversation. He has great dignity, and holds a wand of office with which to wave you towards the inner door which gives upon the Issue Department.  
This is a large square room with counters on all sides, at which all the gold or notes paid into the bank by the general public are received. Anybody can here exchange notes for gold, or vice versa, and all the bags of sovereigns from other banks or from abroad are here paid in. Its only peculiar feature is that anyone paying a note is asked to indorse it on the back. This is for tracing purposes, which will be discussed further on. All the sovereigns and half sovereigns received here immediately undergo in a large room adjoining, the ordeal of the weighers or separators. These are small brass boxes, perhaps a cubic foot in size, with glass sides. In the centre of the brass top is a small round hole, a little larger than the sovereign, which is filled by the round plate of a delicate balance.

Upon this balance the sovereigns or half sovereigns, according to the machine, slide one at a time, by their own weight, from an inclined half tube, in which they are placed by the handful, forming a long, inclined cylinder of gold coins. As each coin weights the balance, the latter sinks. If the coin be of standard weight, the balance sinks far enough for a tiny steel finger moving to the left to tilt the coin off down a tube into a receptacle below. If the coin be light in weight, the balance does not sink so far, and the coin is caught by a second finger moving in the opposite direction, which tilts it into a receptacle on the right. These machines work automatically and perfectly, and save an amount of labor which can only be imagined, testing 30,000,000 pieces per annum. The room contains 16 of them, all working silently and regularly by atmospheric engine power, under the care of a single employee. The light coins are immediately split in half and returned to the mint, while those of standard weight remain in circulation.

The Issue Department is so distinct in its operations from the others that it could be just as well conducted in a separate building. It is required by law to issue a weekly statement, and this statement hung at its door shows on this special day that the outstanding note issue—translated into dollars—amounts to \$220,570,825. This indebtedness, is guaranteed, according to the statement, by the debt owing from the Government to the amount of \$55,075,500; other securities to the amount of \$23,922,000, and \$142,570,825 in coin and bullion now in the vaults.

Gold in bars is received by the Issue Department and paid for in notes at the rate of £3.17.9 an ounce of 22 parts of pure gold out of 24. This price is three halfpence below the market value of gold an ounce, and is consequently less by that proportion than the seller would receive in coin after it had passed through the mint. He would lose interest on it, however, while it was being coined, and the discount arrangement, which is a convenient one for both parties, yields the bank an annual profit of £15,000. For the privilege of issuing the notes and for the exemption of duty upon them, the bank pays the Government about £200,000 per annum. On the contrary, the amount paid by the Government for the management of the national debt, according to the act of 1892, is £325 per million up to £500,000,000, and £100 per million for the remainder. This now aggregates about the sum above mentioned, £200,000 per year. The Issue Department practically manages itself, presenting no complications in the ordinary course of business. As every bank note issue beyond the amount of £16,700,000 is represented by bullion in the vaults, and the £16,700,000 is invested in Government securities, no risk can possibly occur until the issue of bank notes is reduced to this amount, and even then the convertibility of the liability would be easy.

**HOW THE BANK IS MANAGED.**  
The bank is managed by 24 directors, in addition to the governor and deputy governor, and they by their committees have full cognizance of all the bank's transactions and full governing power in all respects. The governors are selected annually as candidates by the directors from among themselves, though they are elected by the stockholders. The chief accountant and chief cashier reside within the bank's walls, and they or their deputies are always supposed to be on the premises. Clerks of standing and character are also selected to remain at the bank every night during the year, and on Sundays and bank holidays. A guard of soldiers is on duty every night, marching from the tower and they are assisted by a body of watchmen, formed of porters and workmen, fully trained in case of fire or other emergency. The total number of employees is about 1,200, the salaries and wages amounting to £290,000 per year, and the pensions to £44,000. The present price of Bank of England £100 shares is £330, and the holders of the stock are 270,000 in number. Only a convenient percentage of them attends the annual meetings, as otherwise these would require to be held in some such spacious meeting room as Hyde Park.

**CANCELLATION DEPARTMENT.**  
You come next to the secretary's office where a polite messenger in a heliotrope coat and top hat takes charge of you. He conducts you first to the Cancellation Department, which, with the Printing Department behind it, are on the Princes-street side. No note out of the 50,000 or 60,000 now issued daily is ever issued twice. If, as a depositor, you should draw any amount in notes at the bank and pay them back into your account 10 minutes afterward, they would be cancelled. So also any other notes received by you from any other bank in London are always new ones, crisp from the Bank of England presses of the day before. The signature is cut off immediately a note is paid in, and the Cancellation Department proceeds to file them in their regular order, taking notice and keeping count of all notes which have not been returned. One of the curiosities of this department is a £25 note, which was paid in after being out for 111 years. The records of this department are of invaluable assistance in checking forgery, and the cancelled notes which are kept for a period of six months before being burned are constantly under examination by Scotland Yard detectives in search of stolen money or other people whose notes have been lost.

A question often raised is whether or not a Bank of England note, which mainly composes the national currency, is invariably good for its face. As a matter of fact, whether lost or stolen, the note will always be paid at the bank. Thence came the habit of requesting all persons presenting notes in the Issue Department to indorse them. The custom is for every person who reports his loss of a note to pay half a crown (60 cents), and for this sum the bank guarantees to send him the name or names of any person who may present the stolen money. Nearly all the stolen notes in England are returned through bookmakers. These men do business on race courses, and have no means of tracing persons who deal with them. They suffer no loss through the stolen paper, and are very generally used in this way by thieves.

One of the directors in 1749 deposited \$150,000 and took a single note, filed out by the cashier, in return. He went home, laid the note on the mantelpiece, and fell asleep. It disappeared. He believed it had fallen into the fire, made an affidavit to this effect and received \$150,000 more, giving a guarantee that if the note was found he would assume its responsibility. Thirty years afterward the man having in the meantime died, the note was presented and the bank had to pay it, and as the man's estate had long been divided, the bank lost the money.

**PRINTING THE BANK NOTES.**  
The notes are printed in a long and narrow printing room, in which a dozen machines of similar construction are in full action. Their denominations vary from £5 to £1,000, the largest note now printed. They cost from 10 to 12 cents each. A single impression completes the note specially numbered, dated, and signed by the cashier. Great reliance, as a check upon counterfeiting is placed upon the paper itself the engraving, as compared with the Canadian bank-note standard, being less elaborate. The paper, specially made from pure linen rags, is strangely thin and remarkably tough. It has a peculiar shade of whiteness impossible to describe, and is printed in indelible black ink of special manufacture. The paper is made by a secret process at a special mill, which time

out of mind has been the property of the Portal family.

The note to-day is practically the same as it ever has been, and its apparent simplicity offers a great temptation to counterfeiters out of employment. The known losses of the bank through counterfeiting mount up in the 200 years of its history among the millions. Forgeries today are rare. The machinery of detection is perfect, and the system of numbering, as well as the perpetual use by all banks of freshly printed Bank of England notes, presents insurmountable obstacles to "smashers."

The most sensational episode in the history of forgeries on the bank of England was that of the Bidwells. While the total amount of money out of which they defrauded the bank was not as large as had been obtained by other great swindlers, the scale on which they were operating, the systematic cleverness with which the coup had been arranged, and the wonderful skill with which a large number of forgeries had been executed and passed by the bank, showed clearly that but for an accidental discovery, through carelessness on their part, the amount of their frauds might easily have mounted into the millions.

## CANAL ENLARGEMENT.

**A Resolution Favoring the Project Passed by the Manitoba Central Farmer's Institute.**

The following resolution was adopted at the annual meeting of the Manitoba Central Farmer's Institute, held at Brandon, Man., the other day. Moved by R. E. A. Leech, seconded by Henry Nichol, and resolved:—

(1) That in the opinion of this institute the great lakes and the St. Lawrence River furnish a valuable natural highway for the commerce of a great part of the Northwest on both sides of the international boundary; and in order that the public may enjoy the full benefit of that highway the canals along the route ought, in the immediate future, to be enlarged so as to accommodate ocean shipping.

(2) That such a deepening of the through channel is even now urgently demanded for the accommodation of the fast increasing traffic of the country west and northwest of the lakes; and it will, if accomplished, by materially reducing the cost of transportation, greatly encourage immigration to this district, and most actively promote the development and prosperity of the country on both sides of the line.

(3) That the Government of Canada, having undertaken many years ago the deepening of the St. Lawrence Canals to fourteen feet, that work ought to be pushed forward to completion with the utmost possible diligence.

(4) That inasmuch as the works now in progress on the upper lakes are calculated to furnish, within the next two years, a channel of twenty feet in depth from the head of the lakes to Buffalo, it is most essential in the interests of the Northwest, as well as of the country at large, that the depth of the Welland and St. Lawrence Canals should be further increased so as to make a channel of a uniform depth of twenty feet to the ocean.

(5) That inasmuch as the entire route is essentially an international one, and as the canals forming part thereof on either side of the line are by international treaty dedicated to the use of the citizens of both countries on equal terms, the work and the expense of further deepening the Welland and St. Lawrence systems ought to be undertaken and borne by both Governments, so that the two countries shall contribute to the entire cost of the undertaking in proportion to their respective interests therein.

(6) That the whole water route from the head of the lakes in the sea should be put under the control of a permanent joint commission, to be appointed by both countries, and its protection should be guaranteed by international treaty.

(7) That this institute rejoices to learn that the Council of the City of Toronto are taking steps for holding an International Conference in that city at an early date with a view to the advocacy of such a scheme.

(8) That we would most respectfully, but most earnestly, urge upon the Government of Canada to cause careful surveys to be made, without delay, with a view to ascertain the feasibility of opening a canal of six feet depth between the Red River and the Lake of the Woods, and the probable cost of such an undertaking; as well as to cause an estimate to be made from actual surveys of the probable cost of opening a continuous waterway from the Lake of the Woods to Lake Superior.

(9) That copies of these resolutions be forwarded to the Premier of Canada, to the Minister of Railways and Canals, and to the Boards of Trade and Grain Exchanges of Brandon, Portage la Prairie, Winnipeg, Toronto, Montreal, Duluth, West Superior, Grand Forks, Fargo, Minneapolis and St. Paul.

## Pigeons and Bi cycles in War.

Experiments with cyclists and carrier pigeons for transmitting messages are being made by the Gymnastic Society of Rome in the interest of the Italian army. The rider carries a small cage attached to his machine in which are several well-trained pigeons. When important observations have been taken and jotted down they are placed in envelopes and affixed to the birds, which are liberated. In every instance thus far the birds have flown promptly and in a straight line back to headquarters, over distances of from ten to twenty kilometers. It is thought that this combination of bicycle and pigeon service can be very profitably used in military observations, and the Italian army office proposes to continue the experiments.

## It's English You Know.

Some idea of the number of New York men who get their clothes in London may be gathered from the fact that recently there were 23 agents for English tailoring houses in that town. Most of the goods are brought into the country free of duty and cost the wearers little less than the same clothes made here. All the big London houses have places in New York city where alterations are made free of charge.

## AN IMPORTANT PUBLIC WORK.

**The Sault Canal Will Give Canada an Unbroken Waterway from the Head of Lake Superior to the Sea.**

By the completion of the Sault canal another important and interesting public work is added to the number of which the Dominion now boasts. When the waterway was undertaken opinions were seriously divided touching the necessity for it. Immediately to the south lies the canal of the United States. To this canal Canadian vessels are admitted on terms similar to those accorded to American vessels; that is to say, we use the United States canal without toll or fee. Seeing that the neighboring canal is at our disposal, it appeared to many of us as if the building of a special Canadian canal were a waste of effort and of money.

During the debate on the proposal to undertake the enterprise one of the legislators suggested that in case of war the United States canal would certainly be closed against us; thus a Canadian canal, if constructed would turn out to be a handy and, indeed, welcome possession. But the argument from the military point of view was not strong. Should hostilities unfortunately break out either Canada or the United States would speedily control the two canals. The circumstances which actually led to the construction of the Canadian canal were two in number. First, the traffic through the United States canal is

GROWING ENORMOUSLY.

With the business extending it is possible that, in the course of time, the shipping of the United States may enjoy a preference in the use of the canal. There is nothing in any treaty to prevent such priority being given. In the second place, the treaty under which we are conceded the right to pass through the Sault canal is, like all other international instruments, subject to reconsideration. A short time ago it was argued across the line that the treaty had already been denounced, and everyone will remember that in spite of the fact that we were allowed by the treaty equal rights on the canal, a discriminating toll was levied for one season. It is true that a pretext was discovered for this discrimination, and that the hostile act on was declared to be retaliatory. But the fact remains that the discrimination was practised, and that at some future time it may be repeated. The actual meaning of the canal is, therefore, that on her own waterways Canada is to be independent. When the proposal to assert our independence was made the cost of the process, based upon engineers' estimates, was fixed at a million of dollars; for a million we were to get a Sault canal complete and ready for use. But the estimates of the engineers, as is too frequently the case, were below the mark. The work, as originally planned, would have cost far more than a million; as extended, elaborated, and improved it has involved an expenditure of

TWO MILLIONS AND A HALF,

and perhaps more. The canal, however, is a masterpiece of engineering, and of construction. It is 18,000 feet in length, including the approaches; and it has a lock 900 feet long by sixty feet wide, and twenty feet three inches deep. When it is opened, it will be in a week or so, the reported breakage not being, as alleged, serious or important, we shall have an unbroken waterway from the head of Lake Superior to the sea. Our canal system, curiously enough, began just where it now ends: for the first Canadian canal was built as long ago as 1798 by the North-West Company at the Sault to facilitate the carrying down of furs and the taking in of supplies. This work was destroyed by the Americans in 1814, just eighty years ago. It was in 1821 that the first Lachine canal was built, and in 1824 that the Welland was commenced. We have rebuilt the entire scheme of canals since the first series was projected, and have spent seventy-one millions of dollars on the enterprise. There is a movement in favour of an enlargement, exceeding in magnitude that now in progress, on the St. Lawrence system, with a view to the passage of ocean vessels to and from the upper lakes.

It is difficult to avoid the conclusion, with respect to this project, that it will be a tremendous benefit to our neighbours, seeing that under the Washington treaty they have the use of all our artificial waterways. For such a benefit they surely ought to pay. We may build a Sault canal to relieve the United States canal, and to protect our own shipping interests, but to expend a hundred millions on works that will be more useful to our neighbours, who contribute nothing to the cost, than to ourselves, is an excess of generosity from the practice of which we may fairly hope to be excused.

## The Wasp's Mission.

Most people will be disposed to doubt the utility of the wasp, those handsome insects which create so much terror when they invade our rooms or buzz about our heads in the country lanes. Yet even the wasp has its use, and a very important part it plays in the economy of nature. What hawks, kites, ravens, owls and birds of prey generally are in the case of field mice and such destructive rodents, the wasp is to grubs and other pests that infest and injure plant life. The birds named have been nearly exterminated in the British Isle under the belief that they are inimical to game, and vile plagues have been the result.

At this season of the year, the wasp is particularly useful, especially in orchards. The young pupae in the nest are fed entirely on grubs which infest fruit trees; and but for the activity of the wasp, these pests would become so numerous as to do serious injury to the tree. It is quite true that the wasp subsequently levies toll on the fruit; but his labors have largely contributed to the salvation of the crop, and the little he takes should not be grudged. A wasp, it should be known, is quite harmless, unless when forced to defend itself; then it is unquestionably vicious. But if left alone it will not sting, though too loose proximity should not be tolerated.

## LUCANIA SHIPS TWO SEAS.

**Passengers Upset and Two of Them Slightly Hurt—A Sailorman Disabled.**

A mighty sea, lashed up by a westerly gale, caused consternation on the Cunard steamship Lucania on Monday forenoon, when she was about 500 miles out from Queenstown, bound for New York. The Lucania was bounding westward nearly at top speed, when the wave toppled over the port bow and rolled aft. Its spray broke on the promenade deck. The bridge railing was bent and twisted. Passengers who had been sitting on chairs and looking at the angry sea from the main deck fled from the invading water. A sailor who was knocked against an iron railing lost several teeth and three of his ribs were broken. A cabin passenger was thrown against a rail by the sudden checking of the ship's progress. His head was cut.

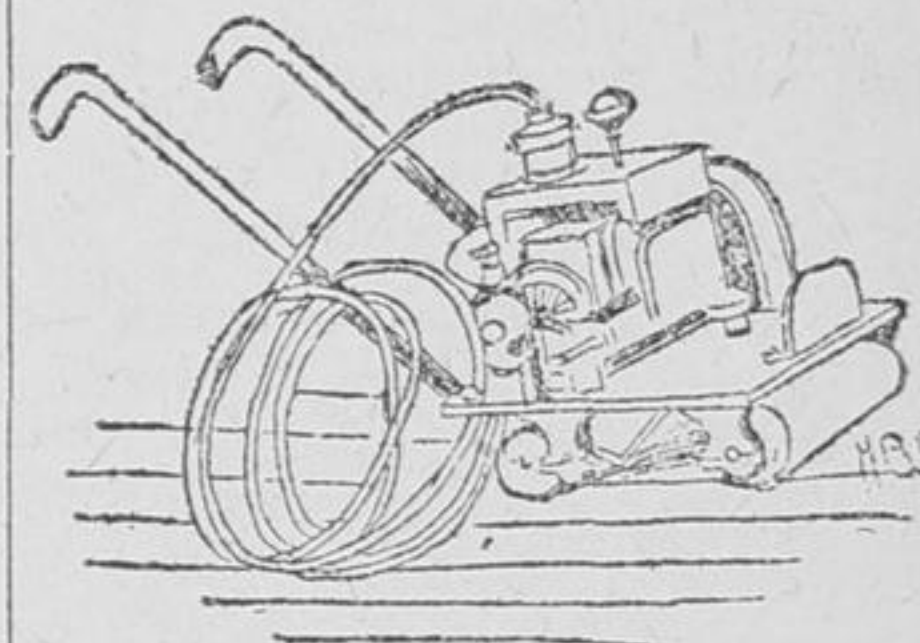
Just after the first big sea rolled aboard another followed it, increasing the confusion especially among the steerage passengers, of whom there were 465. A woman was knocked down and bruised. A part of the torrent smashed in the thick plate-glass windows of the library and flooded it, ruining some of the upholstery. An iron ventilator under the bridge was twisted out of shape, and other ventilators were washed away. The steamship was slowed down and no more water came aboard.

One of the passengers on the Lucania, Mr. D. De Sola Mendes, said that when the big wave came aboard nearly all the ladies were in their berths, the sea being pretty rough for such as were not good sailors. Mr. Mendes, to whom big waves, according to his own account, are familiar visions, thinks the wave was a pretty good sized one.

A good many of the men were below. Mr. Mendes was one of a party of about a score who were sitting on steamer chairs looking at the tumult. It was not raining, and the sky was almost cloudless. A fair-weather gale was piling up the seas. He thinks that it was not so much the height of the sea as it was the tremendous forward motion of the ship, which was being run at full speed, that created the disturbance. She plunged her sharp prow deep into the first wave, the crest of which, Mr. Mendes thinks, came up almost to the bridge. The biggest part of it was a solid green mass, and swept athwartships and tore away fifteen feet of the port rail. A part of it reached the promenade deck, and wrenched from their fastenings two heavy benches. The passengers in steamer chairs on the promenade deck retreated aft, and some of the chairs were swept back with them.

## An Electric Floor-Planer.

Applying the lawn-mower principle to the making of a planing tool, a Scotch engineer, Malcolm Sutherland, of Dumfries, has designed the rather unique piece of apparatus shown in the annexed sketch, and consisting, in brief, of an electrically driven revolving cutter, mounted in a frame on



THE ELECTRIC FLOOR-PLANER.

rollers which by means of handles, can be moved about in exactly the same way and quite as easily, it is claimed, as the garden tool mentioned. The lawn-mower resemblance, in fact, is perfect. The frame, or rather base plate, is of steel, and carries the cutter on its under side, while the motor is placed on top and drives the cutter through intervening gear wheels, giving it a speed of 3,000 revolutions per minute. The hind roller of the base plate, which follows in the cut, is fitted with eccentric journals, so that, by moving a lever, they can be raised or lowered, and the depth of cut nicely adjusted. The principal field of the machine—the one, in fact, for which it was specially designed—is the planing of ships' decks, taking off the pitch and inequalities of the seams of deck plank after being laid and calked. This work has usually to be done in circumstances of considerable inconvenience and disagreeableness, the carpenter having to go down on his knees, driving a jack-plane before him, together with wood shavings and other things less clean. Ordinary floor planing, however, can obviously be done by the machine with fully as good results, so that it is not necessarily restricted to shipyard use.

## Looking Towards England.

No steps have apparently yet been taken by the legislators of the United States to prevent a recurrence of the industrial disturbances of the year. There are, however, indications of the prevalence of the idea that something can be gained by looking towards England. According to the figures given by the British Board of Trade, there were 692 strikes and eight lockouts in England in 1892, and of these 345 were settled either by mutual conciliation or by mediation, 115 by submission of the workpeople, 79 by the hands being replaced, 33 by conciliation and submission, 13 by conciliation and hands being replaced, 22 by submission and hands being replaced, and 16 by arbitration. Conciliatory methods have, therefore, settled more than half of the differences, and it has been said by the Westminster Gazette that there is "a growing opinion expressed year by year, both among employers and workmen, in favour of various forms of arbitration and conciliation." The Philadelphia Record is right in saying that "evidently the didactic tone of the London press towards this country during the recent strike in the West was not altogether unwarranted." Of course, no legislation is necessary to make arbitration possible where the disagreeing parties are willing to arbitrate.