

## IMPORTANT TO SAW-MILL OWNERS.

**ALTHOUGH** we do not claim to be so inventive a people as our neighbors across the line, yet from time to time Canadians have produced improvements in the arts and sciences, at once useful and creditable to the Province. One of these we have lately seen. It is a machine, the invention of Mr. John Lough, of Buckingham, and though apparently simple, as most great inventions are, it has been estimated by practical men to have a most important effect on our staple industry. It is styled Lough's saw tooth press and dressing machine, and has been patented in Canada, New Brunswick and the United States. The widening and setting of saw-teeth has hitherto been a work of considerable time and expense; five or six select men being usually employed at this particular job in mills of any size. The process consisted in first swaging or widening the teeth, an iron or steel bar being held under the tooth, while it was hammered on the upper or slanting side for the purpose of widening the teeth. After this the tooth was "bled and set," that is, each alternate tooth is set a little one side, the object of this widening and setting being to enable the saw to make a cut sufficiently wide to give the saw room to work in the log. This object was but imperfectly attained, as, by their setting, only each alternate tooth cuts on one side, and the set was gradually lost by the bending of the teeth and the wearing away of the points. Besides saws so dressed, from the irregular form of the teeth, were very apt to "run," especially in hard or knotty wood. Practical men and mill-owners have long sought to overcome these difficulties, and at last Mr. Lough claims to have solved the problem. The machine, to be properly understood, must be seen. The result of its operation is, that the under or cutting side of the tooth is widened to say, double the width of the saw plate, and to the depth of about half an inch, while the upper side remains about its former width. The saw is then secured side-ways on a bed-plate, and treated by a plane containing a file, so that the teeth are dressed perfectly true on each side. The advantage is at once apparent to the practical man. The saw requires no set, and the teeth make a clean cut through on both sides. Saws so dressed, it is claimed, will never run, even in the hardest or most knotty wood; so that more feed can be applied, and the inventor claims that saws dressed by this process will cut at least 10 or 15 per cent. more in a given time, than saws dressed in any other way; hence, of course, a saving of 10 to 15 per cent. of mill expenses, besides the economy of time. In addition, there is a saving of at least one-third of the expense of dressing saws, and the lumber so cut has a much superior appearance, and can easily be distinguished from other lumber. Mr. Lough's saws having no irregular points to mark the lumber, but rather acting as a plane to smooth the surface. Such are some of the advantages claimed for the invention. In conjunction with the inventor, Messrs. R. J. Lusk & Co., of Buckingham, have acquired the patent rights already referred to, and are having the machines manufactured as quickly as possible. We may add that the above claims are not based on theory, but on actual experience, the invention in an imperfect state has been in use all last summer in the mills of Messrs. Thomson & Co., Buckingham, with the foregoing results. In fact, experiments have been made showing a much larger gain in cutting than the 15 to 20 per cent. claimed.—*Ottawa Citizen.*

## HOW FORTUNES GROW.

**IT** is astonishing how enormously large fortunes have increased in this country within the last few years. When John Jacob Astor died, his wealth could not have been estimated at more than ten millions, and, as late as 1863, the wealth of his son, William B. Astor, was not over twenty millions. Now, we are told, it is as great as seventy-five to a hundred millions. Stewart, the dry goods tycoon of New York, was barely a millionaire ten years ago; now he is said to be worth twenty millions; and hundreds of prosperous business men in that great city, who possessed large fortunes in 1860, possess fortunes five or ten times as large now. New York exhibits, most strikingly, this process of enormous increase in private fortunes, but the same process is presented in nearly all cities. Everywhere prudent, careful and discreet rich men have grown immensely richer, and we can present many examples of colossal wealth equal to those in Europe. A hundred thousand dollars ten years ago, was esteemed a large fortune, and a million was a rare and conspicuous example of success. Now the former amount is esteemed a trifle, and scores of men can be pointed out who possess the latter. A commercial failure for half a million was once regarded as a great disaster; now failures that do not involve one to five millions scarcely attract attention.

But there is another side to this matter. The rapid growth of large fortunes does not, in truth, indicate a general prosperity and a general improvement of individual condition. The aggregate wealth of the country has indeed increased, but not in a large ratio. The rate of increase has not been over six per cent—some writers estimate it as low as four and a half; but individual fortunes have grown at the rate of ten, twenty and twenty-five per cent. The growth has really been at the expense of the masses. The truth probably is, that the very condition of things, that makes the rich richer, makes the poor poorer. Creditors are rapidly growing wealthy, while debtors, as a general thing, are becoming more and more embarrassed. During the war our financial system was an abnormal one, and it has not been corrected since the war. Our currency is a depreciated one, and the evils of such a currency, first or last, fall exclusively upon the masses, and with peculiarly disastrous force upon those who

are in debt. The currency drifts irresistibly to fixed financial centres, increasing the fortunes of those who are already rich, and crippling those who are already poor. The proof of this can be seen in almost any community for the few examples of great individual prosperity are offset by hundreds of instances of persons who, work they never so hard, are barely able to maintain themselves. The only remedy for this state of things is a severe economy in public expenditures, the strictest honesty in the revenue system, a reduction of the public debt, and the restoration of gold in place of paper money. Colossal fortunes are no proof of a country's prosperity; they are the very reverse, and a condition that favours such enormous accumulations is a wrong that cannot too soon be remedied. That prosperity only is healthful and desirable that is shared by all and which, instead of concentrating itself upon a few, improves the condition of the masses.—*Western Com. Gazette.*

**"THE COMING SHIP."**—The "coming ship," as the intended rival of the *Great Eastern* is designated, has at present been exhibited, in model only, in San Francisco. It is to be of the same size as the *Great Eastern*, except that instead of 23 feet it will draw only 18 feet, and it will carry proportionately less tonnage. It is designed to carry four times as many passengers as any present style of ship, and to substitute for bunks regular beds; it will also give four times the space to a stateroom. The *San Francisco Times* says:—The present mode of bunking passengers is unworthy of the age. Sea-sickness, if preventable by construction, should be rendered obsolete. This desideratum is attained in Thomas Silver's coming ship; it is secured by the proportions of the ship; and by there being thirty feet less of the hull of the ship out of water than in the *Great Eastern*, but the motion is rendered almost imperceptible by a new device. The staterooms, instead of being at the outside limits of the vessel, are amidships, that is along the centre line of the ship, where the roll is scarcely perceptible. The saloon is to be five hundred feet long, and clear of obstructions. It is not for dining. Instead of a public table, there will be two competing restaurants at the extremities adjoining the saloons. The ship will sell passage only, the board being payable as meals are ordered. It is contemplated to carry second-class passengers and third class passengers in the same way. The present first-class bunks will be for third-class berths."

**EMIGRATION.**—The *Pall Mall Gazette* says:—To those in this country who look upon emigration in the light of a hardship, and who would condemn the proposition to establish a system of compulsory emigration as a crime, a discussion which has long been carried on in the New York papers would be instructive reading. Emigration enters largely into American life, although the immense extent of the country saves the unemployed in the State from the sentimental grievance of crossing the seas. A New Englander goes overland, or by water if he prefers, 3,000 miles to California, whereas the East Londoner goes the same distance across the Atlantic to Canada. But when the surplus population does not move fast enough no one hesitates to recommend compulsory emigration. In New York at the present time, there are some thousands who prefer to live upon charity, or by crime, rather than go farther afield to work hard, and one of the results is that during last year about 100 murders were committed in the public streets. Only the other day a man was mortally stabbed at his own door-step, and this in Twelfth-street, close a thoroughfare as crowded as the Strand. The papers, therefore, cry out for some method of compelling the idle class to go somewhere else. "The more money people gives away," complains one journal, "the more unmanageable our pauperism becomes." Habits of providence are as little practised in American cities as in this country, and the effect with us is seen every day. One Saturday a large number of bricklayers, joiners and other workmen were discharged from the builders' yards. Yesterday they were round the streets begging. Their reserved resources were completely exhausted in three days.

## SMALL CHANGE.

**WERE** it not for the fact that we know our people and our legislators have within the past seven or eight years become so accustomed to innovations as to have not only no special dislike of them, but on the contrary, entertain something looking very much like a partiality for all that are evolved by the wheel of Time, we should be disposed to believe we were compelled to suffer the nastiness and inconvenience of our present small metallic and paper currency, by reason of their reluctance to make another change for the sake of change. As it is, we are at a loss to conceive of any good reason why the people should be longer subjected to the disagreeable necessity of handling or carrying about in their pockets a mass of discordant, filthy, mutilated paper promises to pay, or a quantity of copper bronze or nickel tokens weighing all the way from ounces to pounds, when a clean, durable, uniform, attractive and light kind of small change can be substituted at a great deal less cost, and without any inconvenience whatever to anybody. Anything in the form of small change more discredit-able to the taste and wisdom of the Government, or more vexatious to the people than the clumsy, ill-arranged and ill-assorted conglomerate with which the country is now and has been for some time afflicted it would be hard to imagine, and it is time it was super-

sed by something better. The entire mass should at once be called in, and in place of it, we ought to have a currency uniform in kind, degree, design and execution.

The Government should immediately withdraw all the copper, bronze, nickel and paper notes below the value of 25c. now in circulation, and establish a new series extending from 1c. to 10c. similar to and embracing the present metallic 3c. and 5c. pieces. The material of which the latter are made has been demonstrated both in this and other countries to be the very best in all respects for the composition of small coins that can be procured, and its remarkable cheapness renders it peculiarly adaptable at this time.

Rejecting the existing 2c. bronze coin, which is in several respects a nuisance, the country requires about \$20,000,000 worth of small currency, and in the following forms and proportions:—

Of 10 cent coin.....	\$8,000,000
5 ".....	6,000,000
3 ".....	2,500,000
1 ".....	3,500,000
<b>Total.....</b>	<b>\$20,000,000</b>

This amount embraces all denominations of small change under the 25c. notes. Upon the restoration of a specie currency no smaller silver pieces than the denomination of 20c. need be used, and until that time the 25c. notes should continue.

Our 3c. and 5c. pieces are composed of nickel and copper; 25 parts of the former to 75 of the latter; 1c. and 10c. pieces only made of the same material are required to complete the series referred to. The weight of the several pieces of the series should be as follows:—1c. pieces, 1 gram; 3c. pieces, 3 grams; 5c. pieces, 5 grams; 10c. pieces 10 grams. These should be made redeemable in lawful money on demand. To complete the complement required at present, \$13,600,000 would have to be made. The Government could manufacture these coins at the mint at a cost to itself of only \$12.96 for \$40 worth of coins, or the total issue of \$13,600,000 for \$3,400,000, leaving a surplus of \$10,200,000, which surplus at compound interest, in less than five years would yield a sum equal to the entire cost. The pecuniary advantage to the Government resulting from a currency of this description is thus seen at a glance, while its advantages to the people will be seen by contrasting it with the existing kind.—*Industrial American.*

## NORTHERN RAILWAY.

Traffic receipts for week ending Jan. 23, 1869.

Passengers.....	\$ 2,389.54
Freight.....	4,537.27
Mails and sundries.....	260.60
<b>Total.....</b>	<b>7,187.41</b>
Corresponding week, 1868.....	9,267.15
<b>Decrease.....</b>	<b>\$ 2,130.02</b>

## GREAT WESTERN RAILWAY.

Traffic for the week ending Jan. 16, 1869.

Passengers.....	\$22,077.35
Freight and live stock.....	58,455.91
Mails and sundries.....	3,561.08
<b>Total receipts for week.....</b>	<b>\$84,094.28</b>
Corresponding week, 1867.....	63,882.66
<b>Increase.....</b>	<b>\$20,211.62</b>

## NEW YORK MARKETS.

NEW YORK, Feb. 10.

Cotton quiet and steady at 30½c to 31½c.  
Flour unsettled and lower; receipts 4,300 barrels; sales 5,900 bbls., at \$5.65 to \$6.25 for Superfine State and Western; \$6.70 to \$7.05 for Common to Choice Extra State; \$6.45 to \$7.65 for Common to Choice Extra Western.  
Rye flour quiet at \$5.25 to \$7.30.  
Wheat firm; receipts 1,200 bushels; sales 31,000 bush at \$1.58 for No. 2 Spring in store; \$1.60 to \$1.61 for No. 1 and 2 in store and delivered.  
Rye heavy; sales at \$1.46.  
Corn firm 2c and 3c better and fair speculative demand; receipts 9,000 bush; sales 66,000 bush, at 90c to 92c for new mixed Western; \$1.01 to \$1.03 for old in store.  
Barley quiet steady; sales 3,000 bush Canada West at \$2.16.  
Oats dull and firmer; receipts 15,000 bushels; sales 5,000 do. at 75½ to 76c for Western in store.  
Pork lower, at \$32.50 to \$33 for new Mess; \$32.00 to \$31.50 for old Mess.  
Lard a shade lower at 9½c to 21c for steam, and 21c to 21½c for kettle rendered.

## LONDON MARKETS.

LONDON, February 10th, P.M.

Consols 93½ for money and account; bonds quiet and steady at 77½; stocks quiet; I. C. 93 to 94½.

## LIVERPOOL MARKETS.

LIVERPOOL, Feb. 10th, P.M.

Cotton firm; provisions quiet; peas 43s 6d to 44s.