

fallacy that "ten hours pay should be given for eight hours work," and this, reduced to its simplest terms, amounted to a demand for 20 per cent more wages. It is instructive to place side by side the wages then paid (in a vain effort to force which to higher figures the workmen threw away \$1,674,950) with the wages of to-day. By the aid of the *Times'* article, we have prepared the following table:

| Trade. | Trade union scale of wages per week before panic. | Lowest trade union scale of wages per week now. |
|-----------------------------|---|---|
| Carpenters and joiners | \$21 | \$15 down to \$9 (8 hours) |
| Bricklayers | \$27 | \$12 |
| Stone cutters | \$27 | \$12 |
| Masons | \$27 | same but often infringed |
| Plasterers | \$30 | \$12 (8 hours) |
| Shoemakers | \$30 to \$30 | \$10 to \$18 |
| Brass molders and finishers | \$18 | \$15 (mainly piecework) |
| Fresco painters | \$18 | \$10 to \$15 |
| Painters | \$27 | \$15 |
| Goldbeaters | \$14 to \$18 | \$10 to \$12 |
| Sailmakers | \$30 (piecework) | \$15 |
| Carriage builders | \$21 | \$15 and \$12 |
| Caulkers | \$24 | \$21 |
| Coopers | \$20 | \$10 |
| Cabinet makers | \$18 | \$10 |
| Varnishers and polishers | \$18 | \$10 |
| Machinists and blacksmiths | \$18 | \$10 to \$2 (piecework) |
| Iron molders | \$21 | \$12 |
| Box makers | \$20 | \$12 |
| Laborers | \$15 | \$6 to 12 |

If we may take this as an index, the reduction of wages is something over 33 per cent; and therefore men are now gladly receiving pay one third less than that which they struck against in 1872. Nor is this all: a still more impressive contrast is yet to be drawn. When the strike broke out in the last mentioned year, the signs of prosperity were everywhere, the shops were reasonably full, and the aggregate of 82,938 persons given above shows the men actually employed at the time. But as is well known, works stopped, employers failed, and men left for other localities: hence we account for the difference of 6,588 men which there is between the numbers of workmen then and now; but besides these is a deficiency which does not show, namely, the ratio of employed to unemployed. Out of our 76,350 working men, 25,210 are idle. Therefore not only have wages been reduced one third, but the actual supply of work has fallen nearly two thirds. In brief we employ one workman to three employed in 1872; and for the wages then paid to three men, we now obtain the labor of four.

Turning now from general conditions to separate trades, it is easy to trace, in the decline of some, the natural effect of the cessation of the unnatural haste which characterized the expansion of certain industries. Take, for example, building. In 1869 real property in this city would sell for fully one fourth more than it now will, and rent in the same proportion. As a result every one who had unimproved lots built on them, and our higher uptown streets presented the anomalous spectacle of block after block of mere shells of houses rising like mushrooms with astonishing rapidity. Then was the harvest time for the bricklayers, and the masons, and the carpenters, and their wages were \$5 and \$4.50 per day. But as soon as the financial trouble came—in fact, as soon as the strike began—work stopped, and as it has not been resumed, and probably will not be for a great many years to come, to an equal extent, necessarily the trades thus depressed have suffered severely. On the other hand, the hatters, the bakers, the tailors, and all who contribute to human necessities, although their trade is dull, have undergone no heavy losses.

The metal trades have been as severely affected as the building trades; and in general, it appears that all those callings whose work involves capital to be laid out have suffered. People are not poor for if they were, the fact would be apparent among the carriage, pianoforte, cigar, and cabinet makers. For articles of luxury there is a fair demand, but not at high prices. The tendency is to economize and hold on to money, as witness the extremely large surplus in the hands of some of our city savings' banks, one institution having over four millions, another over two millions, and others over one million of dollars above their liabilities.

The signs, on the whole, are encouraging, for habits of thrift and a persistent opposition to high prices will speedily bring down living expenses, from the unnecessarily high figure at which they now stand, to the rates obtaining previous to the war. And this done, and the purchasing power of wages increased, we may soon look for the return of substantial prosperity to our industries.

THE DRAINING OF THE ZUYDER ZEE.

In the year 1170 the waves of the ocean, driven by a hurricane, broke down the dunes and dikes on the northern boundary of Holland, and, pouring in upon the low land, converted a thriving and populous district into an inland sea. There are scores of quaint and curious legends regarding the submerged cities in the Zuyder Zee; and it is said sometimes that, when the water is still, the turrets and pinnacles of the ancient buildings can be recognized protruding above the ooze and mud on the bottom. For seven centuries this great lake has existed; but long before the close of the present century, the islands of Uik and Schokland, once hills, will again be hills, and where now the storms beat up waves, as high and as dangerous as any in the North Sea, will be a broad expanse of fields and pastures.

There is no country in the world which possesses a greater interest to the engineer than does Holland. Her sea shores are lined with the great dikes built of Norway granite, timbers, turf, and clay, heaped up to a height of thirty feet or so, and broad enough at the top for two wagons to drive abreast. Over a billion and a half of dollars have been expended in making these vast embankments. The canals, which form a perfect network of waterways over the country, are wonderfully substantial; so also are the country roads, with their triple line of trees, between the leafy arches of which one can drive for miles in the shade. But

the greatest of Dutch engineering work is the draining of the lakes, ninety of which already have been converted into arable land. It took sixteen years of continuous operations, including three years of pumping by gigantic engines, to remove the water of Haarlem Lake, which covered an area of seventy square miles. Now, however, in the draining of the Zuyder Zee, a task has been begun which throws all previous undertakings far in the shade, and which, as a colossal piece of engineering, will take rank with the Suez canal, and the Mont Cenis and British Channel tunnels.

The Zuyder Zee covers an area of 1,200 square miles, about equal to that of Rhode Island, less Narragansett Bay. Of the provinces which constitute the Netherlands, North Brabant, Gelderland, Friesland, and Overijssel extend over a larger area. North and South Holland, Zeeland, Utrecht, Groningen, Dienthe, and Limburg are all smaller. All the area of the Zuyder Zee will not, however, be drained, it being the intention to remove the water from but 753 square miles. Of this total 73 square miles will be devoted to dikes, roads, and canals, leaving an extent of 680 square miles of arable land. The new province of Zuyder Zee will then rank tenth in point of size—Zealand and Utrecht being smaller—and will render Holland about one eighteenth larger than it is at present.

The preliminary soundings have recently been made, and have shown most satisfactory results. With the exception of along the coasts and about the sand banks, the bottom of the lake is a deposit of 160 feet of clayey earth. This soil is rich almost beyond description. It may be used for crops for a century without impoverishment. We have been informed that, at the time of the separation of Belgium from Holland, when for four years the countries were in a state of war, the frontier cities of Holland were protected by large inundated ditches. When peace returned, these bodies of water were drained, and the soil devoted to agriculture. The deposit precipitated even in so short a time resulted in enriching the land so that never before had it yielded such enormous crops, and even now that section is one of the most fertile in all Holland. Now, with 160 feet of the richest earth at his disposal, it may easily be imagined that, with his proverbial agricultural skill, the Dutch farmer will some day astonish the world with the extent and magnitude of the vegetable productions gleaned from the bed of the Zuyder Zee.

In a few months the plans for the whole work, now being made by Heer Leemans, of Kampen, will be submitted to the government, and operations will shortly follow. These will last probably some sixteen years. Pumping will continue for two years and eight months. The average depth of the lake in the portion to be drained is 14.4 feet. The volume of water to be lifted and discharged on the other side of the dike is 306 billion, 505 million cubic feet. The pumping machinery will aggregate a force of 9,440 horses, and will lift 158,850 cubic feet of water per minute, or 228,787,200 cubic feet per day of 24 hours.

ANOTHER OBNOXIOUS POSTAL LAW.

Since the assembling of Congress, the people have patiently awaited the repeal of the obnoxious postal law, passed during the closing hours of the last session, the effect of which was to double the postage on transient newspapers, magazines and periodicals, books, and merchandise. It was generally understood that this much desired measure would early engage the attention of our representatives; but although the House has taken satisfactory action with moderate celerity, it still hangs in the Senate, having been referred to the Committee on Postal Matters, of which Senator Hamlin, the originator of the very objectionable law passed last winter, is the chairman. This committee has been engaged in devising an entirely new schedule of rates for third class postal matter, which has recently been laid before the Senate by Mr. Hamlin. The act fixes the following rates:

For distances not exceeding three hundred miles, one cent for each two ounces or fractional part thereof; for distances between three hundred and eight hundred miles, two cents; for distances between eight hundred and fifteen hundred miles, three cents; and for each additional thousand miles, one cent additional for each two ounces or fractional part thereof. A special rate is, however, proposed for transient newspapers and magazines, namely, one cent for every two ounces or fractional part thereof for any distance not exceeding one thousand miles; but for any greater distance, double this rate is to be paid.

The object of this discrimination is to relieve the government of a portion of the expense involved in carrying the mails over long distances, in sparsely settled portions of the country, and thus to place the post office on a basis which shall more nearly approximate self-maintenance. This is all that the most earnest supporter can urge in behalf of the bill, which otherwise is a marvel of stupidity and vexation. It is a retrograde measure, reminding one of the rates 30 years ago, when 6c., 12c., 18c., and 25c. were the charges on letters, the rate depending upon the distance. But no intelligent person demands or expects the postal service, in which every body has an interest, to be self-sustaining like the Patent Office department, whose receipts are in excess of its expenses every year. In fact, there is no tax that the public pay more willingly than that due to postal deficit; all they ask is that the department be economically managed, and that business capacity be shown in making contracts for carrying the mails, etc.; but no one desires to reduce the accommodation it affords to the public.

The immediate effect of the proposed measure will bring chaos on all the postal affairs to which it relates. It presupposes a geographical knowledge throughout the entire population, which never could exist. Not only must a man

know the distance of every post office from his residence, but the distance of every post office from every other post office, else he could not stamp his packages correctly. As it would require a public of Zerah Colburns to keep such mathematical knowledge in their heads, tables will have to be prepared, and the people taught to use them; or else the postmasters, especially at large centers, will have to employ clerks for the express purpose of imparting the necessary information. Publishers and business houses mailing packages of papers, books, or merchandise will be put to vast inconvenience, for the distance of the destination of each packet will have to be determined before the required postage stamps can be affixed. Then when errors are made, in prepayment, the post offices will be filled with periodicals and bundles retained for short postage; and the service will be put to more expense, in notifying the senders of the fact.

The bill is fifty years behind the age. It is a retrogression to the earliest days of the existence of the post office. That system went out of existence when the ten cent postage to California was abrogated; and its principle was then scouted as an absurdity. The people want no more tinkering of the postal laws for the benefit of the express companies—a fact too plainly apparent. The immediate result of the law which it is now sought to repeal has been a large decrease in the receipts of the post office, for the government found itself left with the most unprofitable part of the service, the long distance carriage; while for short distances the people have used the expresses, whose rates are cheaper.

The outcry which arose all over the land last winter, when the public appreciated the effect of Senator Hamlin's ill considered law, should have indicated to that official the drift of public sentiment, sufficiently well to have prevented his perpetrating the present blunder. The people feel that the mail is a great and useful vehicle for the dissemination of knowledge, and that it is, moreover, a valuable convenience for the distribution of seeds and other light merchandise among the agriculturists throughout the country. Senator Hamlin's bill should not pass; and the sooner Congress sets about fulfilling the will of the people, by simply repealing the present unjust law and re-enacting the old one, the sooner will it merit the approbation of the public.

TO OUR SUBSCRIBERS.

At this season of the year, many thousands of subscriptions are renewed, and a large number of clubs comprising new names are formed; and we are happy to state that our old patrons have never renewed their subscriptions at the commencement of a year more promptly, and we have never had so large an accession of new subscribers as have come to us since the 1st of January.

If any person fails to receive the paper or any premium to which he is entitled, we would thank him to inform us at once. Notwithstanding the provision we had made for a large increase in our circulation, by printing several thousands extra of the first ten numbers of the year, we find some of the editions already exhausted, which will prevent our sending complete sets of back numbers from the commencement of the volume. The first six numbers can be supplied, and some of the subsequent issues, but, we regret, not all. If persons, when remitting their subscriptions, express a wish for such back numbers as we can supply, those not out of print will be sent; otherwise, the subscriptions will commence from date of their receipt.

Our mail clerks, wrapper writers, and folders are under special injunctions to write the subscriber's name and address legibly, and to fold the paper neatly. We shall be glad to be informed if any one receives slovenly work of any kind from this office.

It is our desire to give satisfaction to every person doing business at this office; correspondents should write over their own signatures, and give address legibly, enclosing a postage stamp. No attention is paid to inquiries if the name and address of the writer is not given.

DEFEAT OF THE SEWING MACHINE MONOPOLY IN CONGRESS.

The Committee on Patents of the House of Representatives has reported adversely on the application of A. B. Wilson for an extension of his patent for sewing machines. This is the celebrated four motion feed now used by the Wheeler & Wilson and other machines. The dispatch to the Associated Press says that the application has been before Congress for several years; and protests against the extension have been received, during that time, signed by nearly one million persons. All of the small sewing machine companies, which had been required to pay a heavy royalty to the sewing machine combination composed of the four leading machine companies, have fought the extension savagely. This refusal will ultimately reduce the price of sewing machines very greatly, as soon as the four-motion feed becomes public property. The Committee say that the applicant has already made two or three large fortunes out of his invention, and that it is time now to give the public a chance. The testimony taken before the Committee shows that the cost of making a sewing machine is not more than from \$12 to \$15.

This action of the House Committee defeats the scheme of the monopolists for the present session, but will not prevent a renewed attempt hereafter.

M. NOMAISON has devised a simple apparatus for removing the bark from timber, an operation now commonly performed only when the wood is in soak. He proposes a small steam generator which sends dry steam into a chamber in which the wood is enclosed. Under the influence of the steam, the bark easily peels off.