

1896, a rise of fully 7 per cent., and though the management expenses were only slightly in excess of the preceding year, viz., £409,550, the agents' commissions absorbed nearly £80,000 more—rather a serious matter. The aggregate lay-by of the seventeen companies—£560,000—was higher by about £100,000 to £120,000 than in each of the three years 1893–95. According to the system of rendering accounts in conformity with the Government regulations, the gross profits were £1,480,000, resulting from industrial enterprise, and £2,988,662 interest from investments.

Management expenses and commission reached together £1,071,394, equal to 0.89 per cent. of the capital of the policies in force, viz., £140,000,000 in round figures. Of the net profit of £954,245, the sum of £183,570 was added to the statutory reserve fund, and of the remainder the policies participating in the profits benefited to the extent of £385,750, whilst the dividends paid to the shareholders took the remaining £384,925.

The system of distribution was decidedly in favor of the shares. The net dividends, after accounting for income tax, were as follows: Generale, £160,000; Nationale, £126,720; Phenix, £35,328; Urbaine, £22,249; Union, £14,000; Soleil and France, £6,000 each; Caisse des Familles, £4,227; Monde and Abeille, £4,000 each; Aigle, £1,200; and Nord, £1,200; whereas five companies paid no dividends.

The accumulated funds of the seventeen companies, upon which the fulfilment of their liabilities towards the policy-holders rests, were stated at £74,225,176, but besides these assets the voluntarily created special reserve funds represented at the end of the year £3,328,892, and there was lastly the profit on investments—that is to say, the difference between the purchase price and the market value of December 31st, 1897—of £10,360,566. This asset is, however, problematic, but, accepting the French version, it would appear that the reserves exceed the amount required by law by the sum of £13,689,458, or say 15 per cent. The investments thus favorably effected were: Real property, as per balance sheets, £20,333,173; French Government securities, £11,483,578; French bonds, guaranteed by the State, £23,927,370; various French bonds, etc., £3,297,033; Foreign Government bonds, £8,008,510; total book value, £67,049,664; market value on December 31st, 1897, £77,086,230. This somewhat hazardous statement has been circulated throughout France for the purpose of demonstrating that the security offered by the French life offices are second to the life insurance companies of no country whatever, "including England," and as this assurance is accompanied by a promise to prove it at an early date with regard to British offices, we intend referring to the matter as soon as the promise has been fulfilled.—Insurance Spectator, London.

RAILWAY CAR BUILDING IN 1898.

An enquiry has been made by the Railroad Gazette, through letters addressed to important railroads, to ascertain the extent of rolling stock orders likely to be placed in the remaining months of 1898. It presents the result in the following statement.

Railroads operating 29,000 miles, with an equipment of 7,500 locomotives and of 300,000 cars, will probably buy before next January, 74 locomotives, 6,000 freight cars, and 40 passenger cars. Of the freight cars, 1,000 are to be of steel. Companies operating about 14,000 miles and owning about 134,000 cars, expect to give some orders, but were so uncertain about it that their figures have not been included in the above. Further than this, certain private car lines expect to buy 735 cars. Electric street railroads operating 5,500 cars will buy 620 new cars.

A considerably larger number of steam railroads than those mentioned above, namely, those operating 64,000 miles, and owning almost 500,000 cars, will buy no new equipment before January 1st. Very little new rolling stock will be bought by railroads in Canada and Mexico during the rest of this year. The replies received represent 58 per cent. of the total mileage, and 72 per cent. of the total equipment of the steam railroads of the United States.

A curious fact in connection with the operation of United States railways, as brought out in Poor's Manual, is the decrease in the number of locomotives in use. That manual gives the locomotive power at the end of 1897 as 35,810 engines, there having been a decline from 36,610 in 1895, up to which year there had been a steady increase. Such a fact, in face of the augmentation in the number and length of railways and the increase in the traffic, is a forcible evidence of the improvement in the art of locomotive construction, in some branches of which America probably leads. The highest class locomotives of to-day draw fully double the loads that were the rule even twenty years ago, and it is not sure that the limit of capacity has been reached.

NAILS.

One of the notable incidental movements of the iron and steel trades during recent years, in the United States, has been the substitution of wire nails for cut nails. The latter description had been the more prominent for many years, but wire nails have only come into competition within the last twenty years or less. The United States consumes a much larger quantity of nails than any other country. This, of course, is only what might be looked for, in view of our vast industrial and agricultural interests, as well as of the advanced condition of our manufacturing interests. It is, therefore, of special interest to trace the recent course of the cut and steel wire nail industries, as illustrated by the experience of the United States.

The New York Commercial estimates that forty years ago the United States produced about 2,000,000 kegs of cut nails, or approximately 89,000 tons. At that time the manufacture of wire nails was unknown. Until 1880, cut nails appear to have held the field, and for some years afterward they made very notable progress in this country, of which the best evidence is the fact that the output increased in the ensuing four years by about 42 per cent. The maximum output of cut nails in the United States was reached in 1886, when it amounted to the enormous figure of 360,000 tons. But from this point the cut product began to decline, and the wire product to advance, until, in 1892, for the first time the wire nail got ahead, with a total production of 4,750,000 kegs, against about 4,500,000 tons of cut nails, the total of both descriptions being 9,220,000 kegs. This is the high water mark of nail output in any country at any time.

Since 1892, the American output of cut nails has rapidly fallen until in 1896 it was less than a fifth part of what it had been in 1886. The output of wire nails has meanwhile gone on increasing, the maximum output in any one year having been 5,841,000 kegs in 1895. The number of wire nail works in the United States is now seventy-nine, against fifty-three in the year 1896. On the other hand, it appears that the number of cut nail machines is now 4,544, against 4,598 in the year 1896. The progress of the one is thus as evident as the regress of the other.

Both descriptions of nails have been greatly cheapened in cost during the last few years. Cut nails, the older product, have fallen in price from an average of \$2.62 per keg, in the six years ending

1872, to an average of \$1.60 in the six years ending 1896. In wire nails the reduction of cost has been still more remarkable.

In standard sizes of wire nails the prices have ruled much lower. The average price of 1897 was \$3.15 per keg, but in 1896–97 prices fell as low as \$1.60, or little more than one-half. Cut nails hold the record for cheapness up to the present time, the average of 1894 having been only \$1.08 per keg.—Chicago Journal of

PAPER FROM CORN HUSKS.

After months of experimenting and investigation, entailing the expenditure of many thousands of dollars, A. G. Winter, superintendent and chemist of the Marsden Development Company, says he has solved the problem of the cornstalk as a commercial and manufacturing commodity. As a result of his searches and experiments, paper and cardboard are now being manufactured from corn shives.

The Department of Agriculture at Washington has carefully watched the experiments, and Prof. H. W. Wiley, chief chemist of the Department of Agriculture, is expected in Rockford for the purpose of carefully looking into the new industry. Heretofore the shive, or outside of the cornstalk, has been regarded as absolutely useless, but by Mr. Winter's experiments the shive promises to become the most valuable part of the stalk from a commercial standpoint. The corncob has been adopted for pipe purposes, the pit has long been used in the manufacture of cellulose. The shive of the cornstalk had heretofore been discarded as useless, but last November the plant at Owensborough, Ky., was selected to accumulate shives, and experiments begun under the direction of several experts. The result of these investigations and experiments is that early last week an old Rockford paper mill was purchased, special machinery installed, and the manufacture of paper from corn shives begun.—Chicago Tribune.

BICYCLE "GUARANTEES."

When the hardware man opens his bicycle department he should be careful to place in charge an experienced man, one who knows what he is talking about. Get some bright young fellow who is a bicycle rider and understands a bicycle. If he is not familiar with the machine you are handling, give him a catalogue and tell him to take an afternoon off and study it carefully. When he has fully digested the book, tell him to take the machine into a rear room, take it to pieces and examine it carefully, so that he will know every little detail of construction, and be able to talk intelligently. This precaution may mean business to you, for a clerk who knows what he is selling is three times more valuable than one who talks like a parrot. You wouldn't have a clerk in your hardware department who didn't know his stock, and there is no reason why you should permit it in your bicycle department.

Remember, the guarantee is a slippery customer and the hardware man had better get a good grip on this subject before it is too late. The bicycle maker has cut down the guarantee from one year to sixty days, and is now thinking of abolishing it altogether. Now there is really no excuse for a guarantee, if the maker builds honest wheels, but it is something to talk about to the customer, and, therefore, has outlived its usefulness. It is now nearly ready to be dropped altogether. An honest manufacturer should never object to replacing a defective part if he is to blame. He cannot afford to overlook a faulty piece of construction.—Chicago Journal.