

to grief, but a large number, and the history of some of these is instructive. A vessel left New York for San-Francisco after having been "thoroughly overhauled" and put into excellent order for the trip, yet before she could do more than weather Cape Hatteras her captain found every set that boarded her running through her decks like a sieve, and he had to put into Rio to have them recaulked ere he dared venture into the latitude of the Horn. Another ship had to put into Montevideo with a leak that threatened to founder the ship and defied the crew to keep the hold clear. When docked and examined it was found that the cause of the mischief was a spike hole which had been left unplugged, while another craft, which, like many more, had to run for Rio in distress, was nearly destroyed by the bad stowage of her cargo, consisting principally of iron which had been stowed between the mainmast and after hatch in such a way that four deck beams had been broken, the stanchions had settled four inches into the ribs and her whole frame was badly warped. But this was as nothing to the case of one ship which, when on her second voyage, had to put into Rio and have repairs to the amount of sixty-five thousand dollars—half her original cost—made on her before she was fit to proceed to sea again. It took five months to do this, and the original work on her did not stand inspection, as in most places where copper bolts should have been found there were iron ones of poor quality and too short for their purpose. Yet the vessel had the highest rating in French Lloyd's.

The uniform complaint of underwriters' agents in South American ports is that the cargoes of all the vessels which put in in distress "are badly loaded and strain the ship." This serious defect is accounted for by the competition in freights and the nature of the freights. These are generally composed of heavy goods, such as machinery, iron, coal and coarse stuffs, and they are stowed on board—once sent down to the wharves—with the utmost expedition, for fear that shippers may be offered cheaper rates by some other vessel or by some railway. Yet the greatest attention will have to be paid to the stowing of cargoes as well as to the seaworthiness of ships, for the Pacific trade is one of the main stays of the American mercantile navy, the transatlantic trade having almost wholly passed into European hands. Perhaps Plimsoll, when he has finished his work in England, may find it worth his while to come over to the States and give merchants and ship-owners there the benefit of his experience. A reform, it would appear, is as much wanted there as it is in the old country, and as reform means improvement, doubtless American ship-owners would find it a decided benefit to be as strict as they once were with regard to inspections and surveys.

**OBLIGED TO KEEP THEIR PROMISE.**—In June 1857, the Knickerbocker Life Insurance Company gave a policy for \$3,000 to Sarah Leslie on the life of her husband, James. He survived her and became the owner of the policy, which he deposited with the insurance company as security for a loan of \$300. Between June, 1865, and October, 1868, the policy by various

mesne assignments, became the property of Leslie's daughter, and she, not knowing when the premiums fell due, applied at the office of the company. She was told that the company would give her notice when the premiums fell due. But the company gave her no such notice.

On the 7th of June, 1870, the daughter was told that the policy had been cancelled for non-payment of the premium, which fell due on the 3rd of June. At that time Leslie was sick, and the fact had been talked of in the company's office. The daughter immediately tendered payment of the premium, but the company refused to receive it: the premium next falling due was also tendered and refused. Leslie died in March, 1871, and the company refusing to pay the policy, the daughter sued and got a verdict for the full amount. The judgment was affirmed in the General Term, the Court holding that the plaintiff was justified in depending upon the defendant's promise, and that her failure to pay the premium having been due to their omission to warn her as promised, they were estopped from setting up this defense. The company then applied to the Court of Appeals, and that tribunal has just affirmed the judgment, with costs.

#### ROLLING TIRES.

The new arrangement for rolling tires, devised by M. Dallar, is favourably noticed by the scientific press. The rolls are on vertical axes. The smooth-faced roll, which corresponds with the inner face of the tire, is mounted on a vertical arbor, which receives its movement through bevel wheels from a horizontal main arbor turned by a twin engine of which the following are the principal dimensions, etc.: diameter of cylinder, ten inches; stroke, thirty-six inches; steam pressure, eight pounds; revolutions per minute, seventy. The profile rolls are three in number, the first reducing the tire after it has been forged under the steam hammer, and the two others completing the work. An arrangement like that adopted in lathes allows of giving two distinct movements to the three rolls, a longitudinal movement to bring the roll up against the tire, and a transverse movement to bring each of the three in succession into action. The last movement is made by hand with the aid of a screw to which a wheel as attached, the transverse carriage bearing the three rolls being thus made to slide on the great carriage which has the longitudinal movement. This latter is mounted somewhat after the fashion of a slide-rest on the lathe bed, and its movement is affected by hydraulic pressure brought to bear upon two pistons fixed to the carriages which enter cylinders fixed to the bed.

One piston cylinder, much larger than the other pair, serve to bring up the roll and press it against the tire, while the smaller piston and cylinder are powerful enough to withdraw it. When the roll is not working, the carriage may be moved by means of a rack and piston worked by hand. The apparatus is completed by two pulleys turned so as to serve as guides to the tire, and the position of which is regulated by a hand wheel and screw. When large

tires are to be rolled, the number of these guide-wheels is increased. A horizontal roll also supports the tire.

The *Southern Church Review* has the following: "The Government statistics of 1871 may well cause every honorable man to hang his head with shame, and may well fill every patriot's heart with alarm. They are as follows. Let them be pondered by every lover of his country.

Salaries of all Ministers of the Gospel..... \$6,000,000  
Support of criminals..... 12,000,000  
Fees of litigation..... 35,000,000  
Importation of liquor..... 50,000,000  
Support of grog-shops..... 1,500,000,000  
Whole cost of Liquor..... 2,300,000,000  
And these are the facts in this enlightened nineteenth century and in these United States. One might infer from them that we are fast becoming, if not already, a nation of drunkards. And then consider this country's estimate of the Gospel ministry, the clergymen of all denominations costing a sum less by millions than the grog-shops of the land!"

A dispatch from England says the report of the Great Western Railway of Canada for the half year announces that there will be no dividends. The deficiency in the revenue is £141,000.

**BRITISH TRADE WITH FRANCE.**—Last year the exports of Britain to France amounted to £16,370,274, while in 1860, the year before the Cobden treaty came into operation, the whole amount was £5,249,980. In other words, these exports have tripled in fifteen years. The imports from France show a still more marvellous increase, but not in the way that was feared, by supplanting and underselling British goods even in English markets. Last year butter was imported from France to the enormous value of £3,944,233, yet the demand for the products of British dairies was never better. Eggs were brought from France in 1874 to the value of £2,018,725; sugar, £2,816,274; and wine, £2,616,355. French silks and ribbons came to the value of seven millions' worth, and kid gloves to the value of £1,250,000. In 1860 Britain exported to France only £298,720 worth of cotton goods; in 1874, £3,062,745. In 1860 woollen goods went to France to the value of £321,488; in 1874 this had risen to £1,065,481. Large as are these figures, it is very evident that the trade between the two countries is yet long in its infancy. —*Globe*.

The Travellers insures against general accidents—not accidents of travel only, but the thousand and one casualties to which men are exposed in their lawful pursuits. It issues policies for the year or month, which are written without delay by any authorized agent. It insures men of all occupations and professions, between the ages of eighteen and sixty-five, at premiums which are graduated by the occupation and exposure. The rates are low, varying from \$5 to \$10 a year for