

Reciprocity in Trade Marks between Great Britain and the United States.

President Hayes has issued a proclamation, under date of July 30, 1878, to the effect that the Government of the United States of America and the Government of Her Majesty the Queen of the United Kingdom of Great Britain and Ireland, with a view to the reciprocal protection of the marks of manufacture and trade in the two countries, have agreed as follows:

"The subjects or citizens of each of the contracting parties shall have, in the dominions and possessions of the other, the same rights as belong to native subjects or citizens, or as are now granted, or may hereafter be granted, to the subjects and citizens of the most favored nation, in everything relating to property in trade marks and trade labels.

"It is understood that any person who desires to obtain the aforesaid protection must fulfill the formalities required by the laws of the respective countries."

Citizens of the United States who desire to obtain registration for their trade marks either in this country or in Great Britain may have the business speedily transacted through the Scientific American office on very moderate terms.

American Institute Exhibition.

It will not be the fault of this paper if the coming exhibition of this Institute should prove to be a chaotic mass of half arranged merchandise on the opening day (September 11), for we have so often given notice of the fact that an exhibition is to be held, and have as repeatedly given notice of the time; nor will it be the fault of the officers of the Institute, for the building is always ready in time; but will, we presume, be the fault of the exhibitor, who, as a general rule, procrastinates, and is often many days behind. We should think that an exhibitor would desire that his exhibit should be arranged upon the opening day, and not a week or ten days later. For information address General Superintendent, room 22, Cooper Union Building, New York.

OLIVER'S SCREW-HEADED KEY.

In the several figures in the engraving are represented different forms of a novel key for fastening the bosses of wheels, levers, couplings, etc., to their shafts. The novel feature of the key is its head, which is made cylindrical, and is threaded to receive the nut by which it is drawn from its seat. Where the key has its seat in the end of a shaft, as in Fig. 1, it is made straight, and the threaded portion is larger in diameter than the body of the key, to allow the nut to pass over it as the key is drawn out. In cases where a projecting head would be objectionable, the boss and shaft may be counterbored, as in Fig. 5, so that the end of the key will be even with the end of the shaft. When a key of this sort is to be removed, a short thimble will be placed over the head of the key before applying the nut, and the nut will have sufficient thickness to extend beyond the boss and shaft to receive the strong wrench employed in turning it.

When the key is used on a line shaft its head is offset, as shown in Figs. 3 and 4, to admit of receiving the nut. When the key is to be removed a U shaped piece is slipped over its outer end to form an abutment for the nut to work against. A key having a head of the ordinary form is liable to break under severe stress, and thereby involve considerable labor in drilling it out. And when a key is removed by means of a drift applied to its thinner end, the successive blows are apt to upset it and increase the difficulty of removing it.

In a manufactory filled with operatives it often occurs that the whole establishment must be idle for days on account of the difficulty attending the removal of a few keys. The improvement illustrated obviates these difficulties, and affords a quick and certain method of removing keys without injuring them, or the machinery of which they form a part.

In factories where explosive material is used or manufactured, as for example in powder mills, it is of especial advantage, as there can be no danger of explosion, as no blows or friction are required to remove the key, consequently no spark can be produced.

This invention was recently patented by Mr. Paul A. Oliver, of Wilkesbarre, Pa., from whom further information may be obtained.

Export Grain Trade of the Mississippi.

Previous to 1870 it was believed that grain could not be shipped to Europe by way of New Orleans, owing to the warmth and humidity of the atmosphere of the Gulf Stream. To disprove that hypothesis the Grain Association in that year sent experimentally 66,000 bushels of wheat to Europe by way of the mouth of the Mississippi. The next year 3,000 bushels of oats and 309,000 bushels of wheat were exported that way. The next three years the exports averaged about 1,500,000 bushels. In 1875 the shipments fell off to 308,000 bushels. In 1866 the jetty improvements led to the exportation, via New Orleans, of about 1,750,000 bushels, chiefly corn. In 1877 the shipments exceeded four million bushels, comprising 351,453 bushels of wheat, 3,578,057 bushels of corn, and 171,843 bushels of rye.

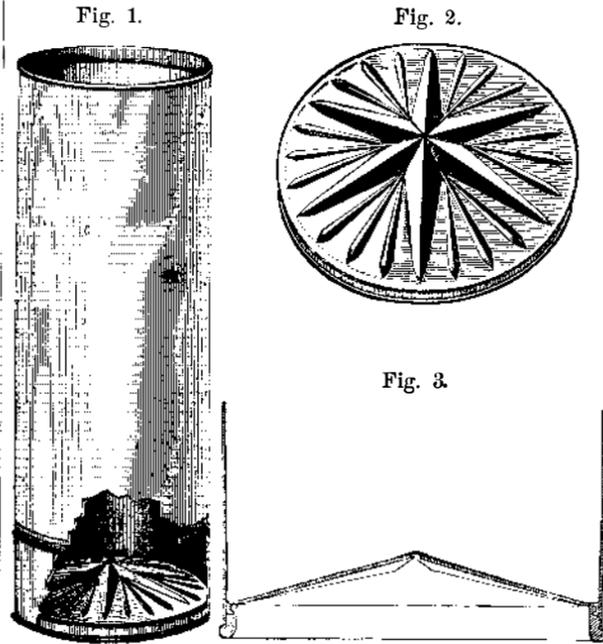
Japanese Houses and Earthquakes.

From the pamphlet of Messrs. Perry and Ayerton, Professors in the Imperial College of Engineering, Tokio, Japan, we learn that the houses in Japan are without the foundations we are accustomed to use; the vertical posts rest on detached stones, and there are no diagonal braces.

Thus the building can be displaced from its position of equilibrium by an earthquake shock without fracture occurring; the so-called "viscous resistance" to the motion, caused by the various joints, diminishing the motion and adding to the safety of the building, while the absence of diagonal pieces tends to lessen the strains.

NEW TIN ROVING CAN.

Probably there is nothing that causes more waste in the carding room than roving cans with imperfect bottoms. In

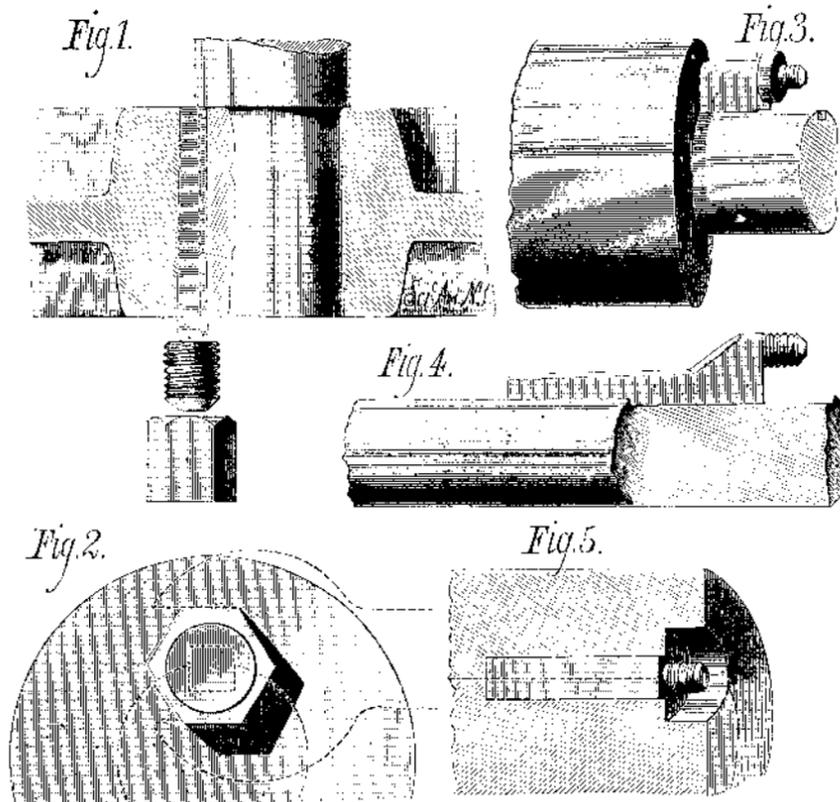


the accompanying engravings a roving can is shown which is calculated to withstand the abuse to which such articles are usually subjected.

The completed can with a portion of its side broken away is shown in Fig. 1. Fig. 2 is a perspective view of the indented bottom, and Fig. 3 is a vertical section showing the manner of putting the parts together.

The bottom is pressed up with a star-shaped indentation in the middle to strengthen and stiffen it. This construction gives the bottom a desirable form and permits of the use of light metal, and at the same time gives it rigidity.

The bottom is attached to a strong tinned iron hoop, and the hoop and bottom together are inserted into the lower



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end of the can, and a strengthening band is put around the can a short distance, say 5 inches, above the bottom, and attached by beading on to the body. When all of the parts are put together in the manner described, the bottom of the can is placed in a vessel containing melted solder and allowed to remain until the solder enters every seam and attaches the bottom securely to the body of the can, when the can is removed and allowed to cool.

We are informed that there are a great number of these cans now in use, giving great satisfaction.

Patented May 28th and June 18th, 1878, by James Hill,

261 and 263 Dyer street, Providence, R. I. For further particulars address the inventor as above.

New Inventions.

Messrs. Henry J. Hellert, Franck M. Müller, and Charles A. Meyer, of Vincennes, Ind., have patented Improvements in Bowling Alleys, by which the pins may be set up and the balls returned quickly by the players themselves, without requiring any person to attend to the pins and balls.

Messrs. Thomas Massey and William H. Rawe, of Pawtucket, R. I., have patented an improved Stopper for Bottles designed to contain beer or other effervescing drinks or liquids; and it consists in a bottle nozzle having curved slots in opposite sides, and in a yoke adapted to the slots in the bottle nozzle, and to a stopper of novel construction.

Mr. Vanderlyn H. Felt, of Kendall, N. Y., has patented an improved Lifting Jack, for raising the axles of wagons to allow them to be oiled, for raising tracks of railroads to ballast and level them, for raising fences to place blocks beneath them, and for other similar uses.

An improvement in Dyeing Apparatus has been patented by Mr. Alphenas V. Hysore, of Wilmington, Del. This improvement relates to apparatus for manipulating stock in a dye house, and for transferring it from one dye vat to another. It consists in an arrangement of hoisting mechanism and a track and a car of peculiar construction, to facilitate the transfer of stock from one vat to another.

Mr. Marcus H. Rogers, of Great Barrington, Mass., has patented an improved Newspaper Folding Machine. This invention relates to the class of machines that are employed in folding newspapers for mailing. The advantages claimed for this machine are that it may be placed under the fly of an ordinary power printing press, and it may be used in conjunction with the press, folding the papers as fast as they are printed.

Messrs. Charles E. Hart and Toby Johnson, of Lake Lillian, Minn., have patented a Combined Burglar Alarm and Indicator, which is operated whenever a cord, connected with the doors and windows of a dwelling, is subjected to tension by the act of opening a door or window. The place or apartment where the burglar is seeking an entrance is indicated upon a register, by means of numbers, one number indicating one place or apartment, and another another.

An improved Bottle Stopper has been patented by Mr. Alexandre Esprit Napoléon Agnel, of Paris, France. This is an improvement in the class of adjustable screw caps or stoppers for bottles used for perfumery, tooth washes, toilet waters, medicines, etc., from which it is desirable to discharge the liquid in drops or fine jets.

An improved Bobbin has been patented by Mr. John S. Crowley, of Manchester, England. The object of this invention is to protect wooden bobbins used in the manufacture of textile fabrics. It consists in a notched ring that is attached to the lower end of the bobbin, for receiving the lugs of the bobbin wheel.

Mr. Amandus Henning, of New York City, has patented an improved Stereotype Block. When the stereotype plates are secured to their blocks by the common method, and it is desired to adjust one of them in a form, it is necessary to unlock the entire form, thereby endangering the arrangement of the other blocks in the form, so that it frequently becomes necessary to readjust the form. Another difficulty common to the ordinary method of holding stereotype plates is that the face of the plate, near its edges, is often injured by the tools employed in fastening the blocks and locking the form. By this improvement these difficulties are obviated.

An improved Water Reservoir and Stove Pipe Shelf has been patented by Mr. John W. Barton, of Emporia, Kan. The object of this invention is to provide a cheap and convenient water reservoir, to be attached to the stove pipe, and to furnish a shelf for holding articles over the stove to keep them warm. The water in the reservoir is warmed without expenditure of extra fuel, and the space occupied by the reservoir is not available for other uses.

Mr. James Dawson, of Brooklyn, N. Y., is the inventor of an improved Attachment for the Hose of Fire Engines, the use of which will enable liquid chemicals to be introduced into the stream of water passing through the hose, so as to be thrown upon the fire with said water, and thus avoid the necessity of having a separate engine for throwing chemicals.

An improved Lamp Bracket has been patented by Mr. Bruno A. Neisser, of Battle Creek, Mich. The object of this invention is to provide a cheap and simple device, attachable to a sewing machine table, for supporting and adjusting the position of a lamp to light the operative at work without preventing the free passing on table of the garment operated upon.

Messrs. George L. Neville and Leroy C. Godwin, of Portsmouth, Va., have invented an improved Device for Canceling Stamps, which consists in a cap having thin sharp edges and two points, which are inserted in the stamp from the back and bent down over its face, to hold the edges of the cap against the back of the stamp.