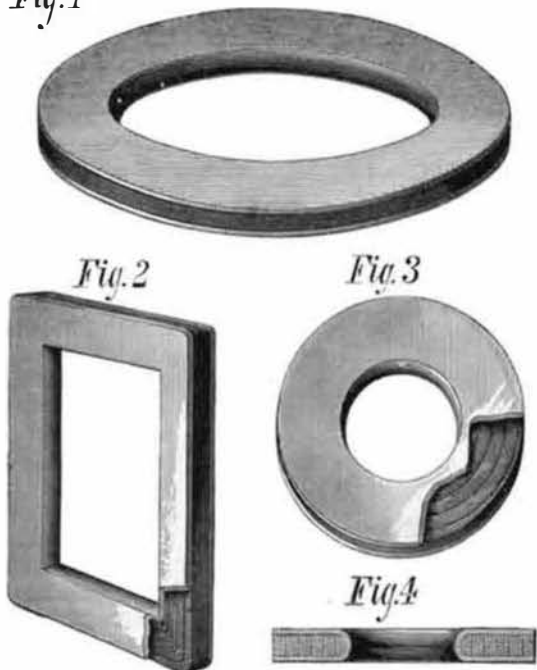


**STOY'S IMPROVED GASKET.**

In the annexed illustration we present a new gasket for packing joints of pipes, hand holes, etc., which is very simply constructed, and which can be made in several different forms as called for by different requirements. Thus Fig. 1 shows the elliptical shape, Fig. 2 the square, and in Fig. 3 the circular form is exhibited, and also the interior construction, which will be more clearly understood from the section, Fig. 2. The device consists of thin annular plates having formed on their inner edges lips, by which they are united, so as to leave a thin piece between them for receiving elastic

Fig. 1



packing, which is a strip of rubber or any other suitable material. Both of the annular plates may be made from a single sheet of metal by the process of spinning.

The advantages claimed are that, when this gasket is clamped between pipe flanges, or between hand hole covers and their seats, a tight joint is formed, which cannot be blown out. The packing is protected by the metallic covering, so that it is not acted upon by steam, fluids, or gas. The joint may easily be tightened by caulking from the outside; and in taking the joint apart, there being no elastic packing in contact with the face, it may be readily removed without tearing or injury, and thus may be used for years without renewal.

Patented through the Scientific American Patent Agency, October 23, 1877. For further particulars, address the inventor, Mr. C. S. Stoy, Butler, DeKalb county, Ind.

**PORTABLE HOISTING ENGINE.**

This is a new type of contractor's portable engine and hoist, constructed in England. As will be seen from the illustration, which we take from *Engineering*, it consists of a cast iron frame and water tank, mounted on four wheels for convenience of transport, and for shifting from place to place on the work upon which it is employed. The boiler is vertical, 4 feet 3 inches in diameter, 7 feet 6 inches high, and fitted with two cross tubes 10 inches in diameter, and 34 hanging tubes 2½ inches in diameter. The engine is horizontal, with a cylinder 10½ inches in diameter, and 14 inches stroke. Two hoists are placed upon the frame, but these can be removed at pleasure. They are driven from the engine by bevel gear, and are thrown into action by means of an eccentric connected to levers, from which a starting rope can be led off to any desired

position, so that the man receiving the load from the hoist has the latter under control, although not near the machine. It will also be seen that the engine is adapted for general work.

**An American Palace Car in Norway.**

In a description of the opening of the extension of the Norwegian State Railroad to Trondhjem, the *Aftenbladet*, published at Christiania, Norway, thus speaks of the palace car recently sent out by the Jackson & Sharp Company, of Wilmington, Del.:

"The royal car moved throughout the entire trip with wonderful steadiness and uniformity, in fact to such an extent that His Majesty King Oscar was able for quite a period to carry on his regular correspondence without being disturbed by any jolting or unpleasant motion of the car. In order that the public might examine the royal car, it was put upon a siding after the completion of the trip, so that ladies and gentlemen desiring to do so might have a good view of it inside and outside. It was, in fact, full of curious visitors all day and was much admired. The royal car, as is well known, is the first railroad car in this country of the American pattern. It possesses great practical advantages, both as regards comfort and convenience of passengers and the train hands."

**The Elevated Railway Outrage.**

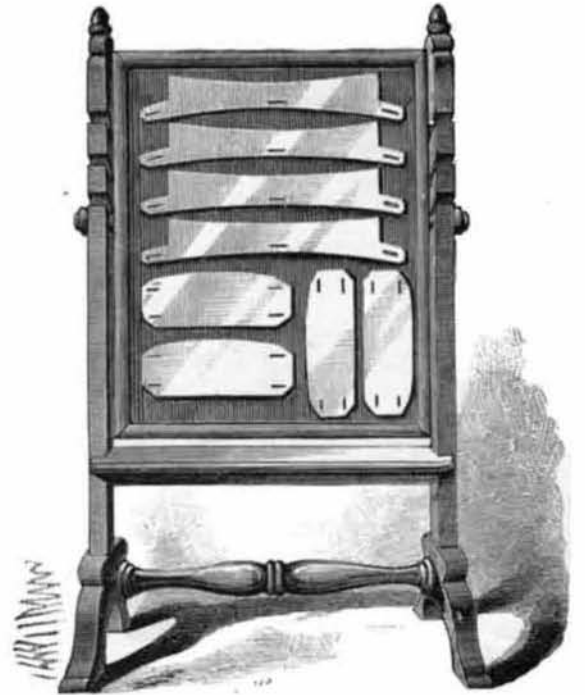
We cannot recall in our time so gross an infringement on the rights of the people in relation to their property as is now being perpetrated in the erection that is to disfigure and otherwise damage several thoroughfares throughout the length of this city, for the benefit of a clique of stock speculators and out-of-town landowners. We do not believe that this railway corporation has any legal right to erect its structure in Pearl street. When a street is opened for all kinds of public uses by compensating the landowners for the property thus taken, the government which represents the ownership of the acquired domain may authorize the erection thereupon of anything which will not interfere with such use. But when the landowners themselves open for their own convenience a thoroughfare through their property, asking no compensation for the land, all that the public can acquire by such a concession is the right of way. Pearl street was thus thrown open by a voluntary concession, and neither the city nor the State ever had the right to grant a franchise for any sort of structure on this thoroughfare without compensation therefor to those who own the fee. But even if the government could do this, the right has been most wantonly exercised, with no proper limitations, and with a recklessness of both public and private interests which is simply astounding.

Not only are sidewalks broken up, but vaults which have been constructed at great expense are wholly ruined, the foundations for the railway structure going directly through them, without reference to the damage thus inflicted on their owners. Millions of dollars will not compensate for the loss and damage brought upon property holders in thus seizing the right of way through streets most valuable for business purposes. We wonder that so many of our most substantial citizens can look on and see this wanton outrage without a

protest. It needs no prophet nor the son of a prophet to predict that they will suffer from this indifference one day in the return of the cup to their own lips. The people of New York will bitterly repent some day of this gross injustice, but the monopoly they have created, having seized its prey, will care nothing for their penitence.—*New York Journal of Commerce*.

**IMPROVED STAND FOR SMOOTHING FABRICS.**

The invention herewith illustrated is a new device for smoothing and glossing fabrics. It consists in an adjust-

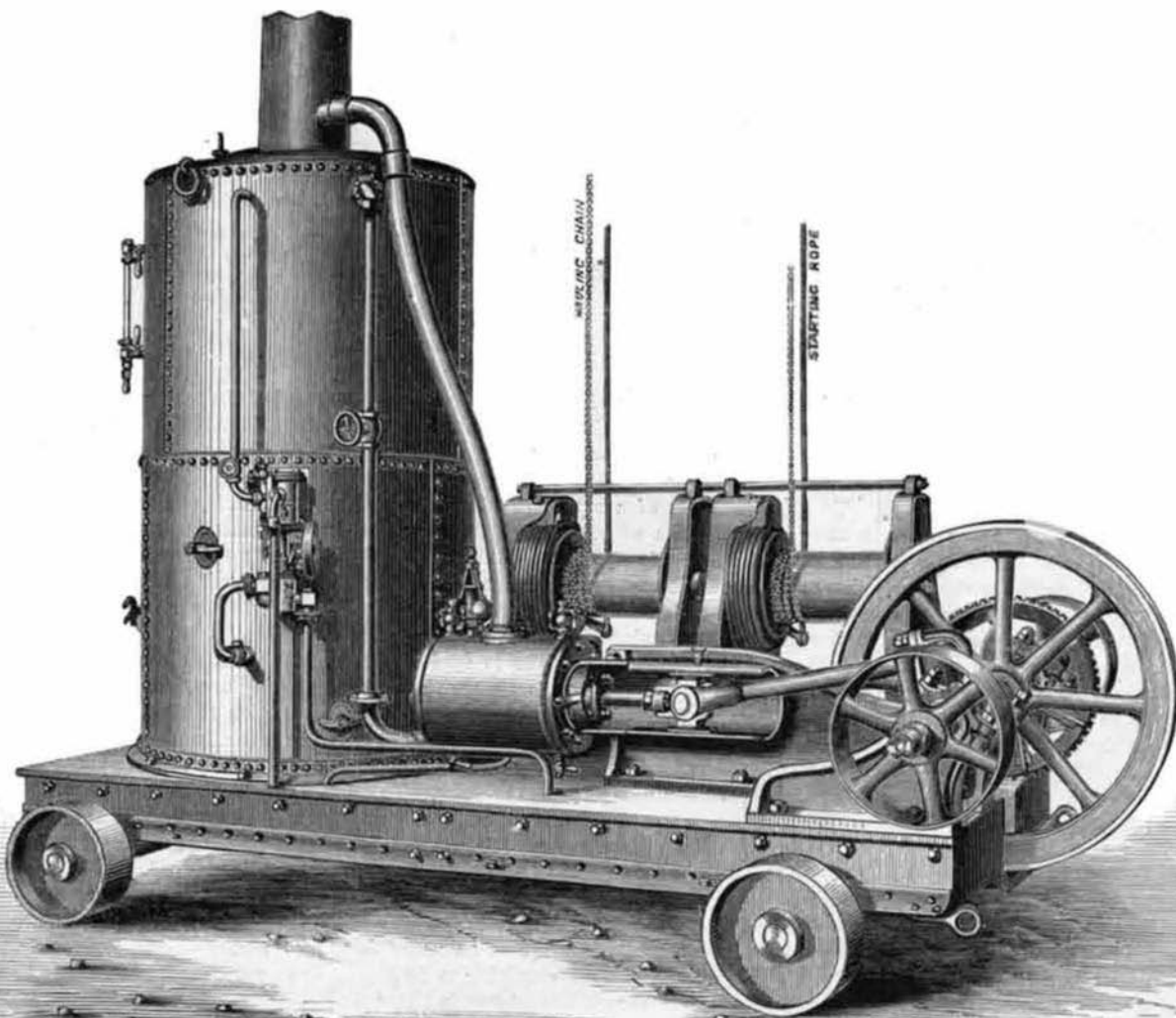


able frame or smoothing board, which is pivoted to a standard and constructed with a metallic surface, on which the moist and starched fabrics are smoothed and dried. The supporting frame is formed of two standards connected together by two horizontal bars. The inner sides of the standards have L-shaped grooves cut in them, adapted to receive pivots, which are fixed to the sides of rectangular frame surrounding a smoothing board. The latter consists of a backing of solid material which is covered on one side with prepared metal. The board is adjustable, so that it can be set at any desired angle from a horizontal plane, and raised or lowered.

The invention is used as follows: Goods, etc., being washed and starched, are spread on the metallic surface and gently smoothed from the center outwards to disperse air blisters and to cause them to adhere closely. The board is then placed near a stove or in the sun to dry, when they will come loose and drop off ready for wearing. Should a gloss be desirable, thick starch is used and the goods are allowed to dry slowly, without adding any chemicals or preparation for glossing. After use the board is washed with clean water and soap, and is then again ready to receive another set of garments.

Patented through the Scientific American Patent Agency, October 2, 1877. For further information address the inventor, J. F. Freese, N. W. cor. of Gay and Eden streets, Baltimore, Md.

The removal of tin from copper vessels coated therewith can be easily accomplished, according to recent investigations of Professor Bottger, by immersing the vessel in a concentrated solution of sesquichloride of lime. Scour afterwards with sand and dilute hydrochloric acid.

**PORTABLE HOISTING ENGINE.**