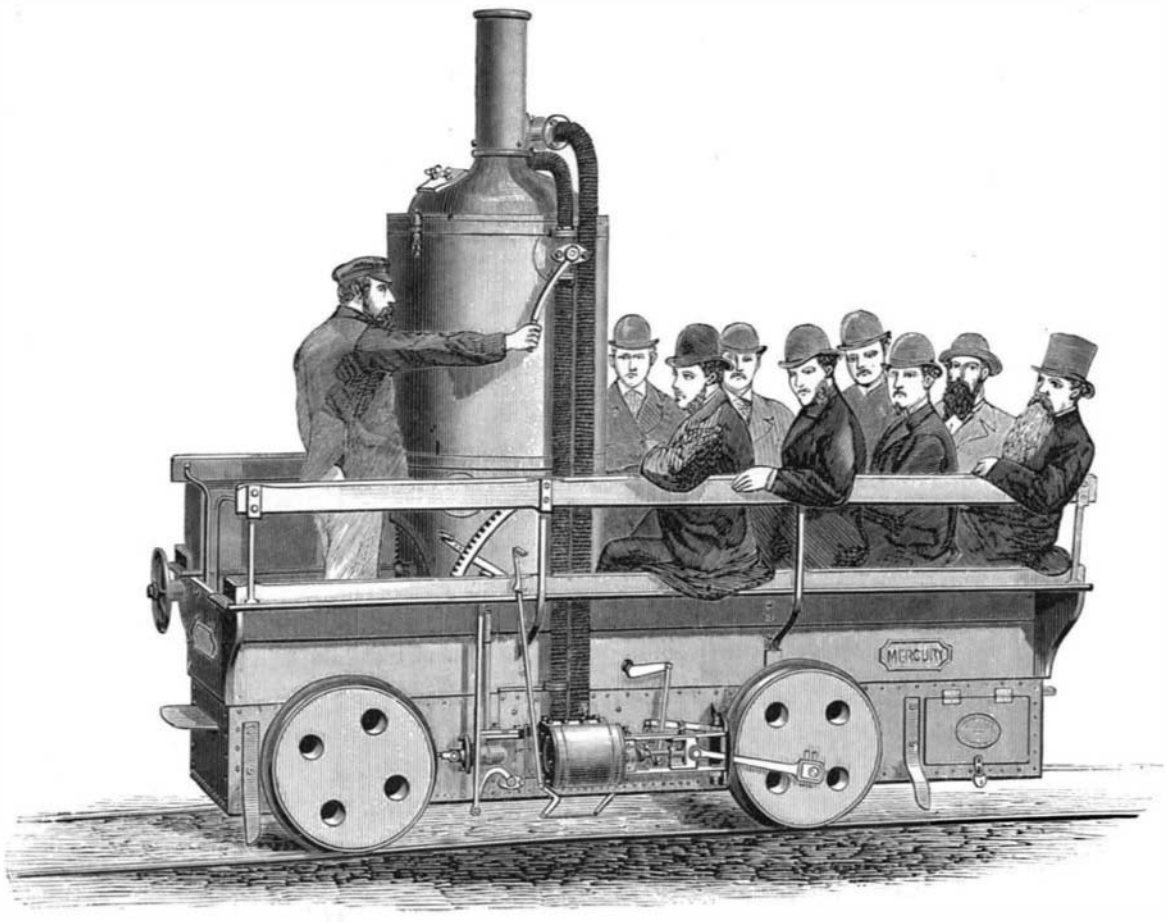
A NOVEL STEAM CAR.

We give herewith an engraving of a novel steam car, designed and built by Ransomes & Rapier for one of the English colonies. It is a combination of engine, tender, brake, and car, all in one, and is said to be the least expensive engine yet made for traveling twenty miles an hour. The boiler is of the vertical type, with ample grate and heating surface. The engine has two cylinders, and is provided with reversing gear and all the other fittings usual in the best locomotive work. The car is mounted on springs, and can be made either open, as shown in the engraving, or closed with roof and glass windows.

With four wheels coupled the engine will draw a load of fifty tons on a level at eight miles an hour.

The machine represented in the engraving will carry eight passengers at a speed of twenty miles an hour. It can also draw two supplementary cars, each containing sixteen passengers, at a speed of fifteen miles an hour.



NEW STEAM CAR.

Carbolized Air.

As an offshoot of Listerism, air which has been passed through liquid carbolic acid is recommended by Professor Sneller, of Utrecht, as a substitute for the carbolic spray. The method suggests itself as a good one. The object of Lister's method is to destroy the bacteria, but the acid employed for this purpose is itself a foreign matter, and, as such, must irritate to a greater or less degree. The carbolized air has the advantage of purity, and is, at the same time, free from objections to the spray. In practice, the air has been found to diminish the bleeding from a cut surface, while the spray encourages bleeding by the moisture it maintains.—*Mich. Med. News.*

A NEW BRICK MACHINE.

The accompanying illustration represents an improved brick machine made by Messrs. Boulet Brothers, of Paris. It consists of three distinct parts—the crusher, the pug mill, and the press, all combined to operate harmoniously together. An elevator carries the clay from the crusher to the pug mill, whence it passes to the cylinder press seen on the right, which forces the clay through a rectangular mouthpiece, and delivers it to the apron in the form of a rectangular prism, which is cut into the required sizes by wires carried by the frame shown at the extreme left of the engraving. Messrs. Boulet were awarded a gold medal for this machine at the Paris Exhibition.

RECENT AMERICAN PATENTS.

An improved shoe, having its upper made of but two pieces of material, opening at the back and adjusted by straps and buckles to fit any ankle, has been patented by Mr. Louis Rose, of Paris, Mo. The object is to furnish a cheap and substantial shoe that can be easily put on and off.

Mr. George E. Wickens, of Tampico, Ill., has patented an improved shirt protector, consisting of an elastic net made of rubber cords or tubes. It is to be worn under the shirt front next to the body, and is designed for keeping the shirt from contact with the body.

Mr. Ebenezer Fisher, of Kincardine, Ontario, Canada, has patented improvements in steel horse collars, which relate to the attachment of the cover or protecting piece to the flanged parts of the collar, also to an arrangement of filling pieces, and other novel features that cannot be described without an engraving.

A novel device for holding doors open has been patented by Mr. Lucian B. Leech, of Smithfield, Pa. It may be adapted to doors opening at different angles. It consists of a spring catch attached to an adjustable bar mounted on a semicircular plate to be attached to the base board.

An improved gate, which may be opened and closed by a person riding in a vehicle, has been patented by Mr. Henry Petry, of Red Oak, Ohio. It consists in a swinging gate having its top bar projecting beyond the rear of the post, and having its end forked to receive a bell crank lever, by which the latch of the gate is operated as the gate is pulled one way or the other by ropes attached to the projecting end of the top rail.

An improved oil can, patented by Mr. Edward T. Jones, of Toronto, Ont., Canada, is made so that it is hermetically sealed when not in use, so that the contents cannot escape either by evaporation or wasting when the can is accidentally tipped over.

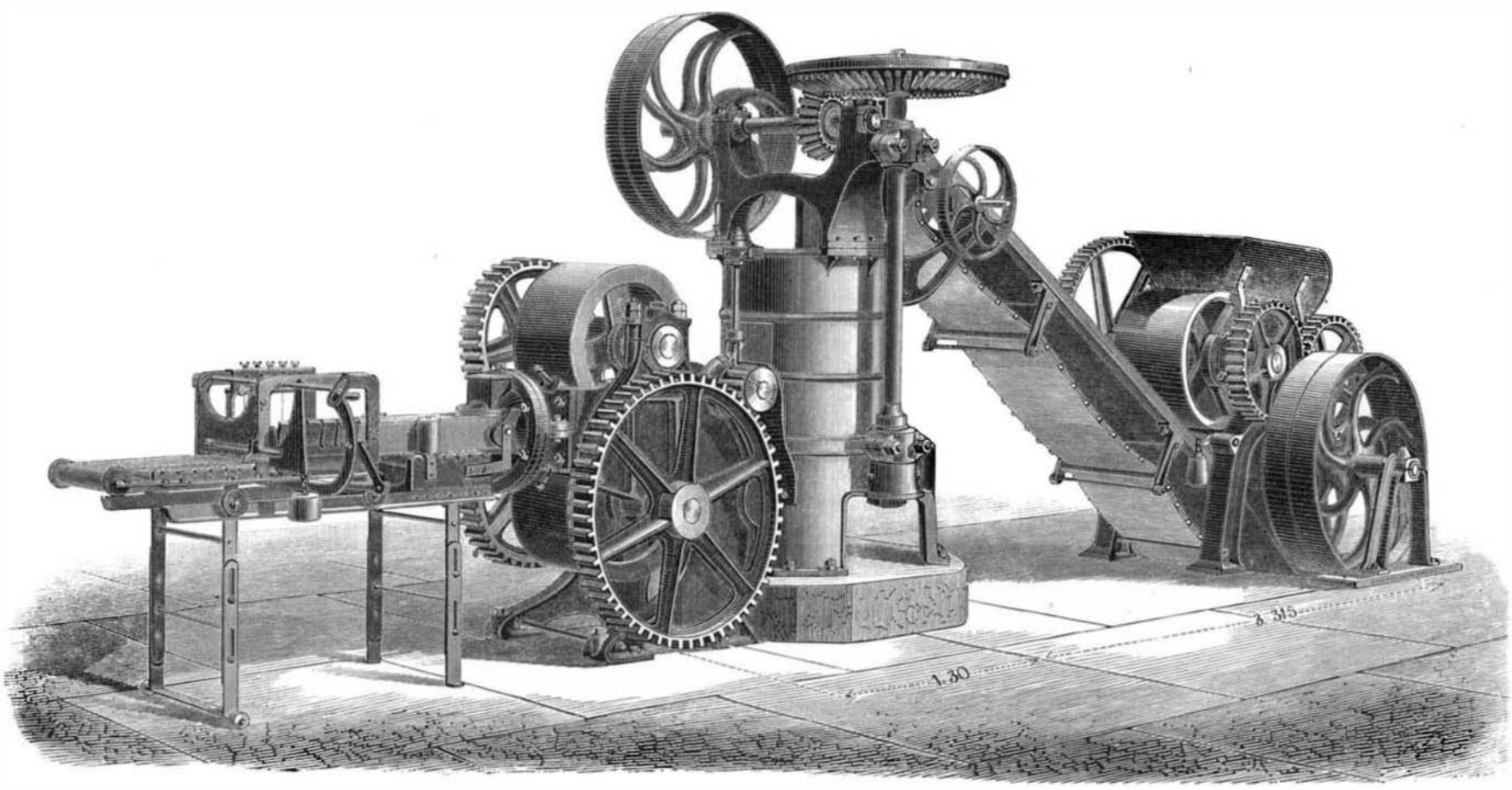
An improved vaginal syringe, in which the discharge tube is provided with a wire guard or shield, has been patented by Mr. John H. Guest, of Brooklyn, N. Y.

A novel gate, patented by Mr. Orlando F. Fuller, of Lamont, Mich., is arranged so that it is opened and closed by the wheels of a vehicle passing over cranks connected with the gate by a peculiar arrangement of chains and pulleys.

An improved apparatus for exhibiting photographic pictures has been patented by Mr. Philipp Costa, of New York city. It is contrived so that the margin of the picture is covered and is provided with a device for intercepting the view while the picture is being changed. It is also provided with stained glass screens through which colored light may be thrown on the picture.

An improvement in hatchway doors, patented by Mr. William H. Cooke, of Wilton, Conn., consists in providing the hatchways with double doors, arranged to slide to and from each other and to be operated by the elevator, which, in ascending and descending, comes in contact with levers fulcrumed in the cleading and connected with the doors, so that the door ahead of the elevator is opened and the one behind it closed simultaneously by the movement of the elevator.

A combined oven door and roaster has been patented by Mr. Henry C. Atkinson, of Franklin, Ky. It consists of a rotary cylinder attached to an oven door for roasting coffee, popping corn, etc.



BOULET BROTHERS' BRICK MACHINE.