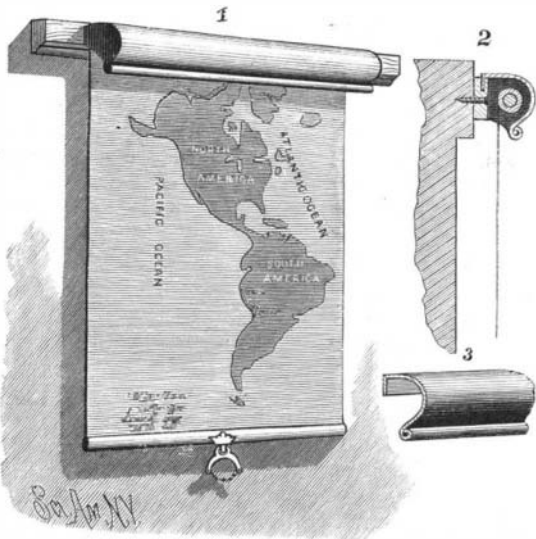


a height sufficient to bring it above high water mark. Layers of brush, willows, reeds, etc., are lashed vertically to the trestle by means of horizontal stringers bound to the frame of the trestle as shown. The trestle frame is then filled with stones and gradually sunk.

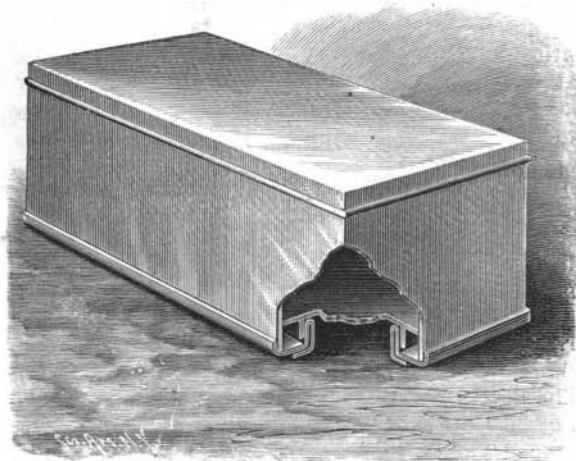


BULLARD'S EXHIBITOR FOR WINDOW SHADES, ETC.

The weight of the stones will be sufficient to retain the dike firmly in position. A bundle of reeds or willows is bound to the frame at the point of intersection of the vertical and horizontal layers of reeds to prevent the water from flowing between these layers, and a pile of stones from two to four feet high is piled upon this to keep it in place. This system has been patented by Mr. Henry C. Weeke, of St. Charles, Mo.

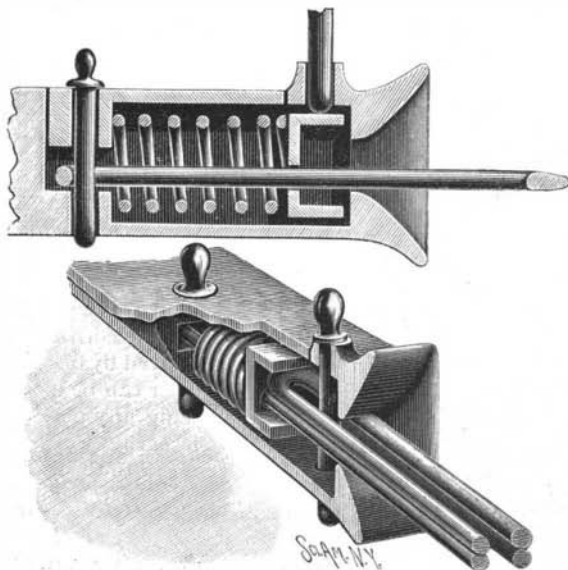
A BOX TO HOLD BRICKS OF ICE CREAM.

A box for containing bricks of ice cream, and which will admit of the cream being dislodged from the box with neatness and dispatch, is illustrated herewith, and has been patented by Mr. James Van Dyk, of No. 116 Bridge Street, Brooklyn, N. Y. The cover may be



VAN DYK'S ICE CREAM BOX.

of any approved construction, but the bottom is movable, of a form to fit snugly within the box, and has a downwardly extending flange a little distance from the edge. At the bottom of the body of the box is formed a flange adapted to constitute a seat for the movable bottom, and also a channel between the flange and the body of the box, the flanges being so formed and arranged that the one will fit snugly within the other. The body of the box is made gradually wider from the bottom upward, so that as the movable bottom is pressed up, acting as a follower to the cream, the latter need only to be started to loosen it and permit its ready removal. To retain the bottom within the box, and obviate the possibility of its misplacement or injury, retainers, not shown in the illustration, are secured to the inner surface of the body of the box, each formed of sheet tin or like sharp material,



CLARRIDGE'S CAR COUPLING.

whose sharp edge will present but little resistance to the cream, and will not mar its appearance.

AN IMPROVED EXHIBITOR FOR SHADES, MAPS, ETC.

A readily attachable device, which will effectually conceal a shade when rolled up and shield it from light and dust, is illustrated herewith, and has been patented by Mr. Edwin A. Bullard, of Vassar, Mich. The fixtures of a spring curtain roller are secured upon the face of a strip of wood, a number of which strips may be arranged in succession over the shelving. In the upper edge of the strips is a groove, to receive and retain in position over the curtain fixtures and roller a protector, consisting of a piece of sheet metal or equivalent material, bent to form a semi-cylindrical body, as shown in Fig. 3, the manner of attachment being shown in the sectional view, Fig. 2. When a series of such covers are in position they will form a moulding as far as they extend. These exhibitors may also be used in connection with curtain fixtures of dwelling houses, the protector being put up the full width of the curtain, and the slats secured to the casing of a wide or narrow window.

AN IMPROVED CAR COUPLING.

An automatic car-coupling, employing ordinary coupling pins and links, with the drawbar of about the form of those already in use, is illustrated herewith, and has been patented by Mr. John Clarridge, Sr., of Libertyville, Iowa. The draw bar has the usual flaring mouth, but with the inner part reduced in size to form a guide for the link, the chamber for receiving which contains a spring. In the rear of the chamber are shoulders to act as an abutment for the spring, and in its mouth are shoulders to limit the motion of a follower pressed forward by the spring, this follower consisting of a plate bent twice at right angles, and having an oblong aperture to admit a link. At the rear of the chamber are vertical apertures for receiving a coupling pin to permanently retain a link in place in the drawbar, the follower then, when the coupling is ready to be connected with another coupling, being in the position indicated in the sectional view, and forming a support for a coupling pin, for which vertical apertures are provided in the forward part of the drawhead. The outer end of each link is beveled, so that when it approaches another link similarly supported it will not be liable to collide with it, but will slip past, either above or below it. When the cars approach each other, the parts being arranged as shown in the sectional view, the link carried by each drawbar enters the other drawbar and pushes back the follower against the pressure of the spring, allowing the outer pins supported by the followers to fall through the links thus introduced, and automatically effecting the coupling.

KANE'S CAR BRAKE.

Mr. George O. Kane, of No. 193 Thurbus Avenue, Providence, R. I., is the patentee of an improved brake for railroad cars in which the brake shoe is applied to the track instead of to the wheel of the car. By this method the wear upon the wheels from friction with the shoe and sliding on the track is avoided. The entire weight of the loaded car bearing upon the brake shoe brings the car and train to a sudden stop. Two pairs of oppositely arranged brake shoes are pivoted at one end to a depending frame on each side of the car, the other end of each shoe being connected with the lower extremity of a toggle joint. The upper arms of the toggle joints are pivoted to the car frames, while the joints are attached to opposite ends of the brake beams, so that when the brake beams are made to approach one another, the angle of the toggle joint is increased and the shoe is lowered on to the track. As may be seen by examining the cut, between the brake beams fixed upon an immovable frame is pivoted a brake lever, which is united with the brake beam by connecting rods, so that when the brake lever is turned by means of the brake rods, that connect the ends of the lever with the brake on the platform of the car, the two brake beams will be made to approach one another, straightening the toggle joints, and the brakes will be forthwith applied. The rods connecting the brake beam with the brake levers are provided with springs at their outer ends.

ANCEL'S STOVE PIPE AND TENT SUPPORT.

In the device illustrated in the accompanying engraving, the smoke pipe of the stove is used as the support of the tent. This device has been patented by Mr. John W. Ancel, of Fort Buford, Dakota. The stove pipe is made telescopic, the smaller sections at the top being made to slide inside of the sections under it. Each section at its extremities is provided with holes into which are inserted screw-threaded pins for locking the pipe in position. The stove may be of any desired type. The top section of the pipe has a sleeve provided with a flange from which is suspended the heavy ring which carries the tent proper. This sleeve is removable, and is likewise locked in position by means of a pin. A bell-like shield caps the whole to prevent rain or snow from entering the opening at the top of the tent. The sections of the pipe are made flanging at the bottom and are bent in at the top so as

to make the joints tight-fitting. By this device the smoke is carried away and the tent is thoroughly ventilated, while the ordinary tent pole is done away with. When traveling, the pipe may be folded and packed

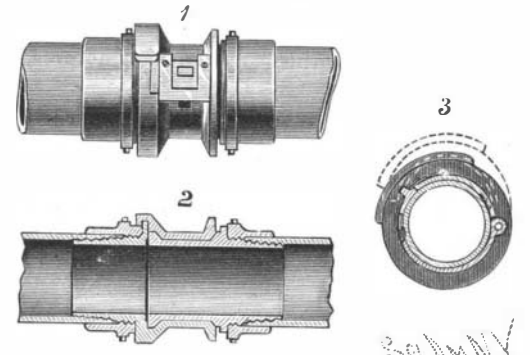


COMBINED STOVE PIPE AND TENT SUPPORT.

away into very small space, occupying no more room in fact than the largest pipe section.

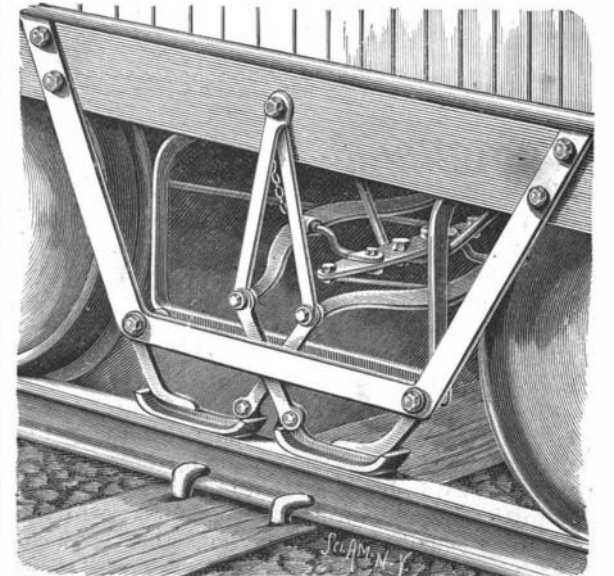
AN IMPROVED HOSE COUPLING.

The illustration herewith represents a hose coupling designed to be simple in construction and efficient in operation. It has been patented by Mr. James D. Sloan, of Rushville, Ind. Fig. 1 represents a side view and Fig. 2 a longitudinal section of the coupling engaging two pieces of hose, while Fig. 3 represents a cross section. Collars, internally screw-threaded, are engaged on the respective ends of the hose, each hose being then engaged to the corrugated ends of a coupling, each collar being shorter than the corrugated ends of the coupling, permitting the outer end of each corrugated part to expand on the inside of the hose, and cause the hose to expand over the outer edge of each collar. This feature, with the corrugations, forms a strong connection between the hose and coupling. The body of the



SLOAN'S HOSE COUPLING.

coupler has an end collar, a middle collar, with one part narrower than another, and external corrugations at one end, a part of the side at one end of the body being cut away, or provided with a large opening, to be closed by a hinge. When the hinge is closed, a yoke spring engages a lug on the body and locks the parts. When disengaged, a flat spring is exerted to open the hinge, the extent to which it may be opened being limited by a small lug, as shown in dotted lines in Fig. 3. When the hinge is open, the part corresponding with the pipe section, having two collars and threaded end, held in one end of the hose, may be engaged with the body or hinged part of the coupling. Then by closing the hinge and causing the yoke spring to engage with a lug on the body, the several parts of the coupling are firmly united.



IMPROVED CAR BRAKE.