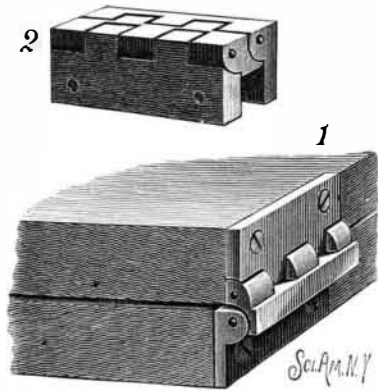


AN IMPROVED HINGE.

A double flush hinge, adapted to be used as a single or double hinge, is shown in the accompanying illustration, and has been patented by Mr. William S. Larimer, of Floodwood, Ohio. The hinge is formed in three parts, two of the parts being secured to the parts to be hinged, while there is an intermediate rotary supporting piece, formed with a flat face extending from end, with concave recesses and lugs having convex sides, and shoulder which abuts against one of the fixed parts when the hinged parts are in the same plane. One of

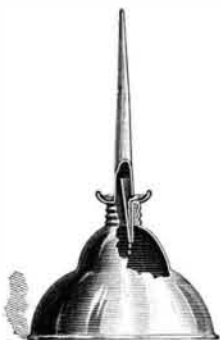


LARIMER'S HINGE.

etc. The intermediate rotary supporting part may be omitted when it is desired to use the hinge as a single hinge.

AN IMPROVED OIL CAN.

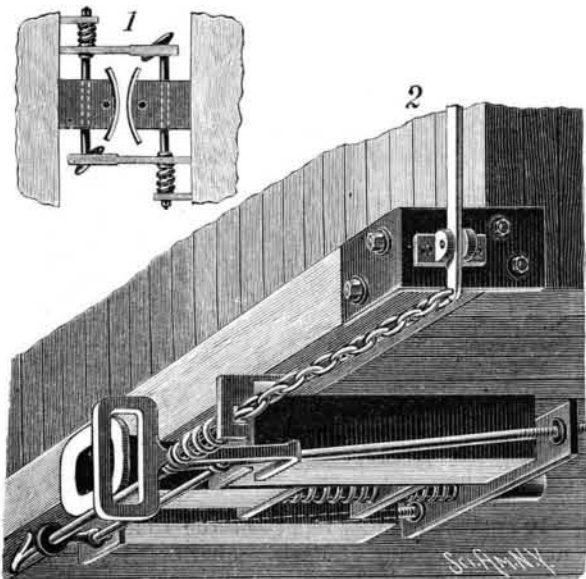
The bottom of this oil can is made stout or rigid, as there is no necessity to spring or flex it for the purpose of discharging the oil. Within the spout, near the body of the can, is a tube tapering downwardly, this tube being closed at its top, but having only a contracted aperture at its bottom. This tube is provided with an intermediate vent or air aperture passing through the side of the spout immediately above a drip pan, the tube serving the double purpose of draining whatever oil may gather in the drip pan back into the can and also as an air vent when the can is in use. The tapering shape of the tube helps it to draw off the drip and also to more effectually act as a vent, while it is difficult for the oil to enter the smaller end of the tube when the can is inverted. This can can be used with the heaviest and thickest kinds of oil, it only being necessary in such case to proportionately enlarge the openings to the spout and vent. It has been patented by Mr.



Henry Muller, of No. 551 Tenth Avenue, New York City

AN IMPROVED CAR COUPLING.

The illustration herewith represents an improved double automatic car coupler which has been patented by Mr. Manuel M. Carmona y Valle, of No. 8 Calle de la Encarnacion, City of Mexico, Mexico. It is designed to be entirely automatic, being of simple construction, having great resistance and no loose pieces, while it can be disengaged from either car, and can be used in connection with cars furnished with the common coupler. The drawbar spring at the rear of the drawbar has follower plates and a drawbar cage with keys arranged in the ordinary manner. Through the drawhead extends a horizontal bore or slot adapted to receive a coupling pin, held in the position shown in Fig. 1 by a spring abutting against a stop carried by the car body, the free end of the pin carrying a forwardly extending arm. Upon the other end of the pin is mounted a lever having at its forward end a coupling



CARMONA'S CAR COUPLING.

link, while the rear end of the lever is forked to embrace a rod connected with the car body, or such rear end may be connected to a spring, for adjusting the link at about the desired height. As two cars come together the forward lengths of the coupling links bear against the inclined arms of the opposing coupling pins, moving them against the tension of their springs until the extended end of each of the pins clears the forward link length, when the springs act to throw the pins into coupled position, as shown in Fig. 1. To use this coupler with the ordinary forms of coupler, a simple form of saddle is provided, to be passed over the drawhead, and having eyes through which the coupling pin is passed. To these eyes are connected rearwardly extending auxiliary drawbars, which pass through apertures in the rear drawbar plate. This coupler is designed to be used automatically, even if the couplers are not of the same height or if they deviate laterally, while with its use no change is required in platforms, and it is applicable to both freight and passenger cars. A link and pin can also be added, if desired, and used in connection with it in going up steep grades.

A LAMP HEATER FOR VESSELS.

A device for use in connection with lamps, to utilize their heat in heating a vessel placed above the flame, is shown herewith, and has been patented by Mr. John W. Zinn, of Hawthorne, Fla. The device consists of a base of flat or band metal in the form of a ring, and having slots in which are hinged arms or uprights. The upper end of each arm is slitted vertically, and the divided ends bent in opposite directions, one of such divisions of each bifurcated arm forming a hook for suspending the device from the upper edge of the chimney of a lamp, while its opposite division is made slightly higher than the hook, these higher portions serving to support a suitable vessel above the chimney. The arms have slight projections, forming spring catches, to be sprung over the upper edge of the base to hold



ZINN'S HEATING ATTACHMENT FOR LAMPS.

the arms in upright position, but when the device is not in use these arms are folded within the base, as shown in one of the views.

AN IMPROVED SEED COTTON CLEANER.

The illustration herewith represents a machine designed to draw seed cotton from a storehouse, wagon, or other point, by suction, thoroughly clean it from sand, dust, and other foreign substances, and discharge it without passing through the fan. The machine has been patented by Mr. William M. Wilson, of Friar's Point, Miss., and the small figures represent transverse and longitudinal sections. From the bottom and top of the machine tubes are carried to the side, the top tube being united to the bottom tube at the base of the machine in a single pipe, at the extremity of which is an exhaust fan. The inner ends of these tubes are in vertical alignment, and a third tube is carried from the opposite side of the machine to a wagon or storehouse containing the cotton to be cleaned. A series of three transverse shafts are journaled upon longitudinal beams, beaters being secured upon the forward and intermediate shafts, and these beater shafts revolving in opposite directions, each radiating arm of the beaters having a shear in an opposite direction, as shown in the small sectional view. The rear shaft carries a corrugated, fluted, or brush-covered delivery cylinder. The interior of the machine is divided into three compartments, an upper and a lower one being connected with their respective exhaust tubes, while the central one is connected with the delivery tube, and is to receive the seed cotton, which is propelled through this compartment by the beaters to the delivery cylinder. The division into compartments is made by upper and lower screen partitions. A vertical gate or gravity air valve is pivoted in the rear upper end of the machine, within the central compartment, immediately to the rear of the delivery cylinder. In operation the cotton is drawn by the exhaust fan into the ma-

chine, at right angles with the forward beaters, which carry it downward and along the lower screen, freeing the cotton from heavy sand, etc., which escapes into the lower compartment. The cotton is then thrown against the rear beaters, and by them thrown against and along the top screen, removing dust or other impurities, the cotton being finally cast upon the delivery cylinder, and carried out past the air gate and discharged from the machine.

IMPROVED FEED OR NOSE BAG FOR HORSES.

The accompanying sketch illustrates an improved



FEED BAG FOR HORSES.

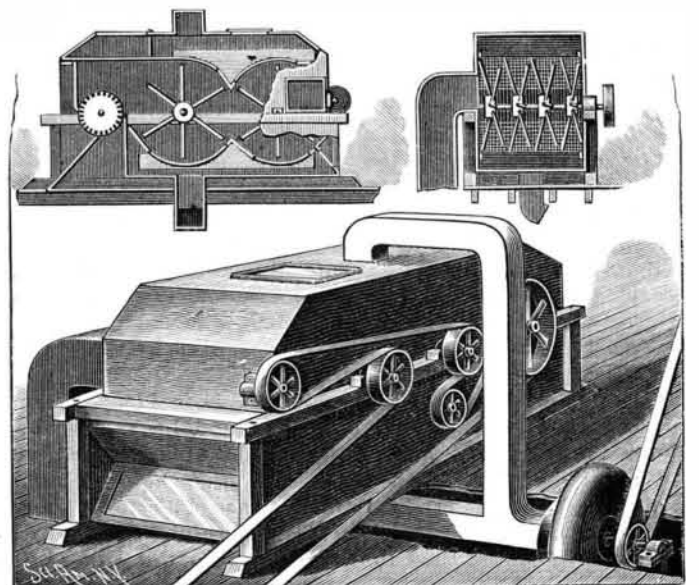
feed or nose bag for horses, letters patent for which are owned by the Champion Feed Bag Company, of No. 381 Pearl Street, New York City. The bag is constructed of canvas or equivalent material, but its top is of greater diameter than the bottom, and it has a protruding portion or pocket on its under side when the bag is attached to the head of a horse, preventing the feed from falling out of the bag as the horse elevates his head. The bag is also provided with two ropes instead of the ordinary one for easily and comfortably holding the feed bag in the best position upon the horse's head while the animal is feeding.

Bakers, Look Out!

The fact that flour mills have been set on fire by the combustion of the particles of dust floating within the mill is conclusive; but that bakeries are liable to the same mishap we have not seen reported before.

"That fine organic particles suspended in the atmosphere will form explosive mixtures as dangerous as fire damp or coal gas was again illustrated," says the *Chemist and Druggist*, London, "recently in a Paris bakery, at 42 Rue Croix-des-Petits-Champs, near the Banque de France. There, as in most bakeries, a cloth shoot was employed for bringing the flour from the storeroom upstairs down to the kneading troughs in the bakery. Somehow a movable gas jet came into contact with the cloth, and burned a hole through, when a terrific explosion took place, blowing out the front windows, and making the whole shop a perfect wreck. Unfortunately, besides material damages, the accident caused severe personal injuries to two men, one a journeyman baker, whose face was badly burned, and a passer-by who was wounded in the head by the flying debris."

The *Medical Press* says there is a talk of applying telephones to the infectious wards of the French hospitals, so as to enable the sick people isolated in their contagious sufferings to have the comfort of hearing their relatives' voices without any risk of conveying infection by an interview. It certainly is a very humane idea, and would not—one would think—be a very costly one to carry out. Why not try the telephone in some of the infectious wards of our own hospitals?



WILSON'S SEED COTTON CLEANER.