



### THE MEREDITH CIGAR-VENDING MACHINE.

In the accompanying illustrations a new cigar-vending machine is shown, which possesses novel and distinctive features, and covers an unusual range of work. It practically forms an automatic retail store, in which a customer waits on himself, but is enabled to visually

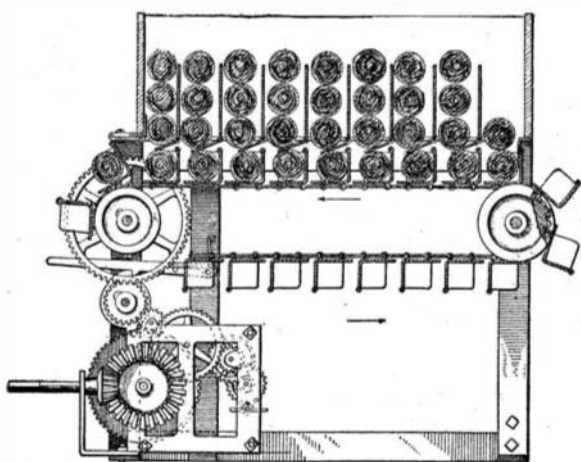


Fig. 2.—MECHANISM OF THE CIGAR-VENDING MACHINE.

inspect and select out of the original boxes any kind or quality of cigar for a single coin, or any number of cigars for a single coin; as three for ten cents, six for a quarter, etc. It is especially intended for hotels, club rooms, barber shops, etc., and while dispensing entirely with the aid of a clerk, insures to the customer the receipt of any kind, price, or quality of cigar that he may select. For the purposes of visual inspection and selection, all the cigars in their original boxes are displayed in full view beneath an extended glass showcase. The customer after making a selection drops his coin in the proper slot, and by special delivery mechanism, under the control of the customer by means of a push button, one or more cigars of the kind selected and paid for is automatically discharged into one of the side troughs within reach of the customer.

The delivery mechanism is unique and ingenious in preventing skinning or abrasion of the cigars. The bottom is cut out of the box in which the cigars come, and the box is placed above the vending unit as seen in Fig. 2, and the cigars are then put back in the box. Stationary vertical partitions in the vending unit extend up into the cigars, dividing them into vertical tiers. An endless carrier belt with cells, each receiving a cigar, is given a regulated movement through a clock spring gear set into action by the push button and coin. The carrier belt causes the lower horizontal layer of cigars to be carried forward under the superposed cigars, and discharges them at one end. A hinged leaf or false bottom separates the lower cigars of each vertical tier from the upper ones, and prevents skinning. After the rear vertical tier of cigars is received



Fig. 1.—CIGAR-VENDING MACHINE.

into the cells of the belt, the next vertical tier is similarly fed into the cells by the dropping of the hinged leaf or false bottom. Each box of cigars has a delivery unit similar to that seen in Fig. 2.

Although primarily intended for cigars, the device

is equally adapted for vending any kind of articles or packages of uniform size.

This invention has been protected in three patents to Mr. G. W. Meredith, who has assigned his rights to Milo R. Meredith, of Wabash, Ind.

### BRAKE MECHANISM FOR VEHICLES.

Pictured in the accompanying illustrations is an improved brake mechanism, which provides means for applying brakes to the front wheels of a vehicle, as well as to the rear wheels. The invention also includes supplementary operating mechanism, adapting it for use either with or without the wagon body. One of the illustrations shows diagrammatically the mechanism used, the wheels and body of the vehicle being indicated by broken lines. The front brake lever is shown at A and the rear lever at B, while fulcrumed to the vehicle body is a short lever C. The upper arm of the lever C is connected with the lever B and with the foot lever D, by means of a pair of rods, while another rod connects the lower arm of lever C with the lever A. Thus, when the foot lever is moved forward, both the front and the rear brakes are operated. The upper end of the lever B carries a pulley block. Around this block a rope is passed, one end of the rope being fastened to the upper end of the lever A. By drawing on the other end of the rope the levers A and B will be moved toward each other, setting the front and rear brakes. The rope and pulley gear provides a two-to-one leverage, and this is further increased by the length of the levers A and B, thus affording a very powerful brakeage. The great advantage of this arrangement is that the brakes can be controlled either from the wagon or by a person on foot. In the case of long teams the brakes may be operated from the back of a saddle-horse. The rope gear permits coupling out of a wagon to any desired length. The front brake lever is fulcrumed to the bolster, and one would suppose that with the body of the vehicle removed,



BRAKE MECHANISM FOR VEHICLES.

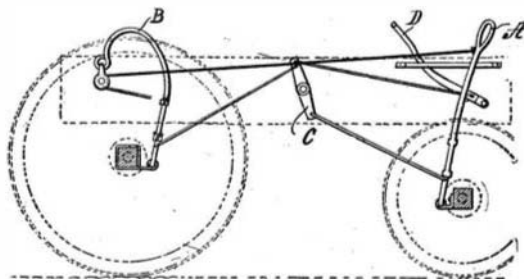


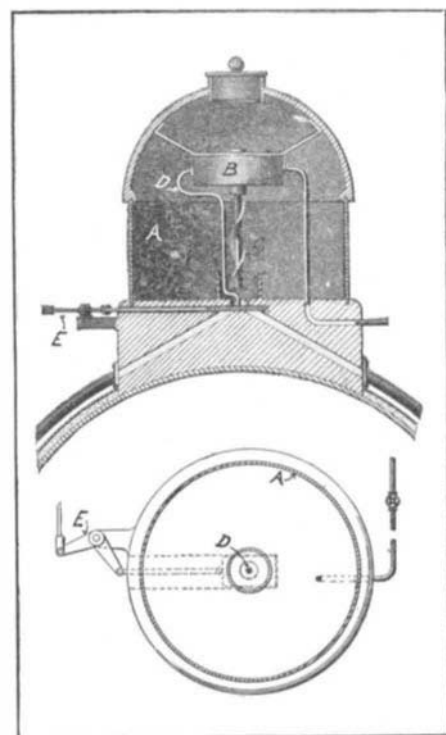
DIAGRAM OF BRAKE MECHANISM FOR VEHICLES.

the bolster would turn on the pin bolt when the brake rope was pulled. But to prevent this the inventor has provided a bracket which holds the bolster always at right angles to the coupling pole, that is, parallel with the rear bolster. The inventor of this brake mechanism is Mr. Gilbert D. Buchanan, Saratoga, Wyoming.

### AN IMPROVED TRACK-SANDING DEVICE.

A recent invention provides means for loosening the sand in the sand box of a locomotive whenever desired, so as to insure a proper flow to the rails of the track. Briefly stated, the invention comprises an air motor, which operates an agitator within the sand box. The motor is operated under control of the engineer or fireman, and the exhaust from the motor is utilized to drive the sand down the tubes leading to the track. In the accompanying illustration the sand box is indicated at A. Suspended within the box A, by means of brackets, is the air motor B. The agitator, which is shown at C, consists of a rod provided with spiral ribs or fins. This stands vertically over mouth of the ducts leading to the rails. The exhaust air from the motor is led to the ducts through the tube D. The valve which closes the mouth of the tube is operated by the usual gear E, from the cab of the locomotive. Ordinarily, it may not be necessary to agitate the sand; for unless it be caked it will flow down by gravity to the rails, whenever the valve is withdrawn. But in

emergency cases or whenever the engineer finds that the sand is not flowing properly, he needs merely to open the air supply pipe, when not only will the sand be agitated and loosened, but it will be positively forced down the tubes leading to the rails. A patent on this



IMPROVED TRACK-SANDING DEVICE.

sanding device has been secured by Mr. Albert G. Zamel, of 560 West Twelfth Street, Chicago, Ill.

### FOLDING CRIB.

In the accompanying engraving we illustrate a crib which is so constructed that it may be folded up to make a compact parcel for transportation or storage. The device should be found useful when moving from one place to another, or to persons living in limited quarters, who can take down the crib and store it away during the daytime, and readily erect it at night-fall. The construction of the crib will be clearly understood by reference to the engraving. The frame comprises two pairs of crossed legs, one pair at each end, which are connected by four side rails. The latter are reduced at their ends to pass through holes in the legs, and are held in place by cotter pins or pegs. To make the frame perfectly rigid, brace rods are extended from the side rails to the pivot of each pair of legs. These rods are each hinged at the center, so that they will collapse when the crib is folded up. To hold the legs properly spread, a cross-bar is used on each pair near the top. The body of the crib is made of canvas, and is provided with pockets on the upper edge at each side, through which the side rails are passed before being fitted to the legs. The hood of the crib is stretched over a collapsible frame, which fits in sockets in the side rails. In our engraving we illustrate the crib as partly torn away, to show the slats sewed into the bottom of the crib body. These slats give the required stability, but do not interfere with its folding.



A FOLDING CRIB.

The small compass into which the crib can be folded is pictured in the foreground of our illustration. The inventor of this improved crib is Mr. Louis Dejonge, Jr., 139 St. Paul's Avenue, Stapleton, Staten Island, New York.