(No Model.)

W. S. LAMSON.

DROP FOR STORE SERVICE APPARATUS.

No. 303,522. Patented Aug. 12, 1884.

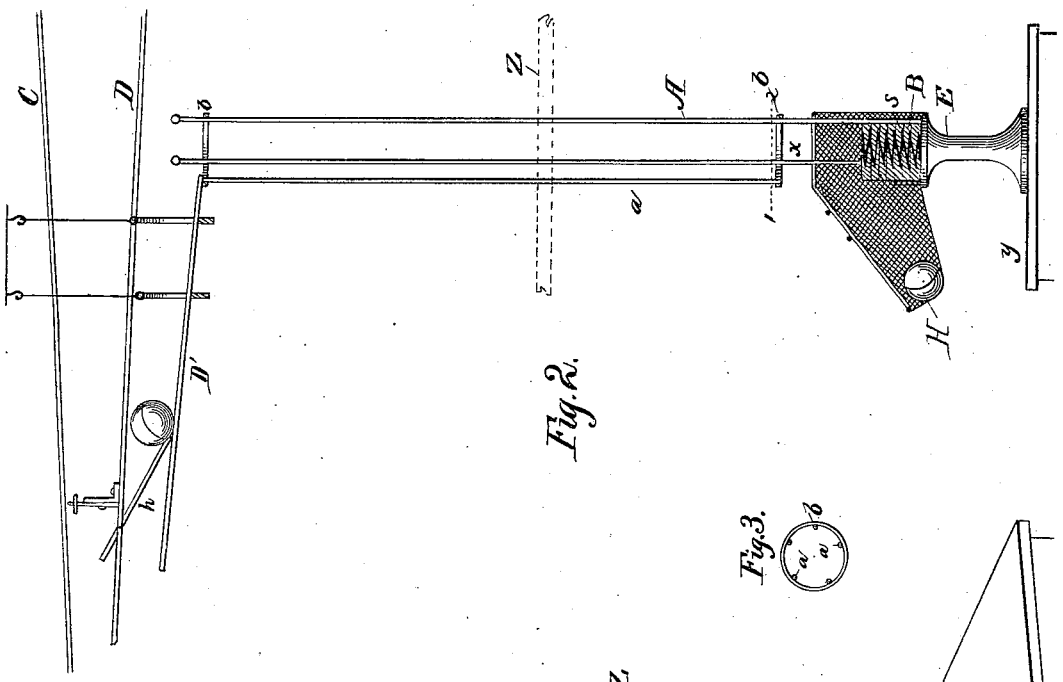

Fig. 2.

Fig. 3.

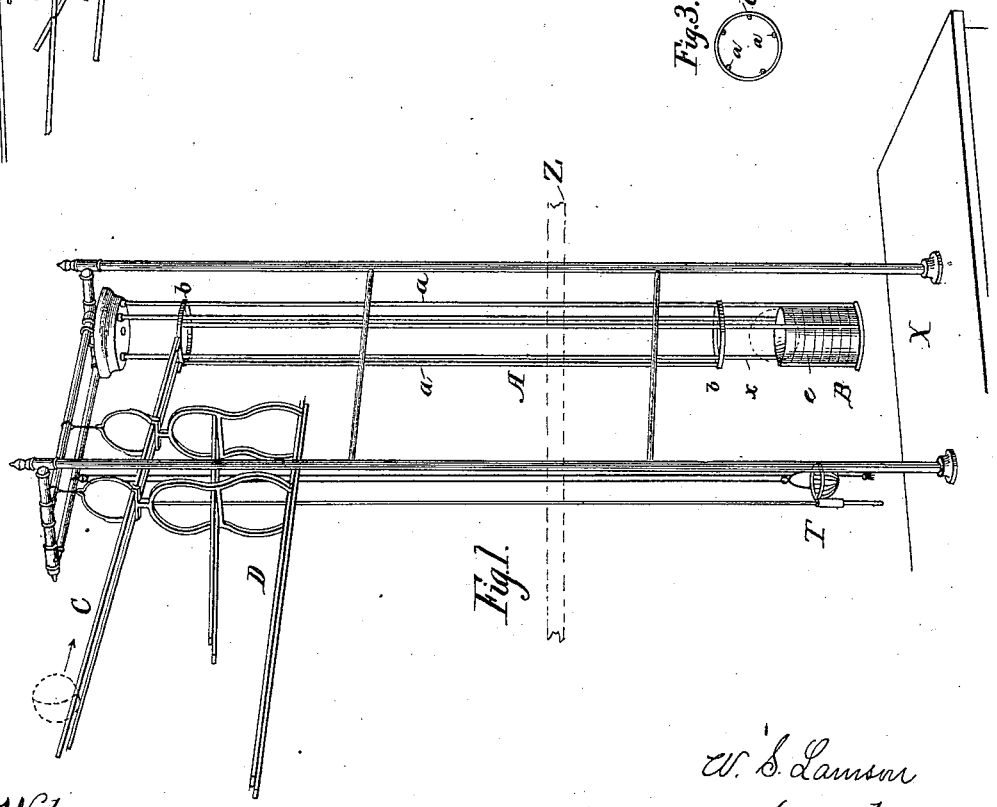

Fig. 1.

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UNITED STATES PATENT OFFICE.

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DROP FOR STORE-SERVICE APPARATUS.

SPECIFICATION forming part of Letters Patent No. 303,522, dated August 12, 1884.

Application filed March 1, 1884. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM S. LAMSON, a citizen of the United States, residing at Lowell, in the county of Middlesex and State of Massachusetts, have invented certain new and useful Improvements in Drops for Store-Service Apparatus, of which the following is a specification.

My invention relates to that class of store-service apparatus in which rolling balls or carriers are used; and it consists in the combination, with the ways, of one or more tubular conductors, whereby the carriers are directed without noise or injury to the proper station, and in such a combination and arrangement of ways, stations, and conductors, and elevating appliances as avoids waste of floor-space in the salesroom.

In the drawings, Figure 1 is a perspective elevation of sufficient of a store-service apparatus to illustrate my invention. Fig. 2 is a sectional elevation illustrating a different arrangement of the conductors; Fig. 3, a section on line 1 2, Fig. 2.

In that class of store-service apparatus in which rolling carriers or balls are employed it is sometimes desirable to have the ways or rails, both for conducting the carriers to the desk and back to the stations, at a high elevation, and it is also sometimes desirable to rapidly conduct the carriers from the elevated ways without the necessity of operations by the attendants and without noise or injury to the carriers. It is common to employ receiving-baskets, into which the carriers are directed at their respective stations or at the desk; but the necessity of constantly moving the same up and down, especially at the cashier's desk, where all the carriers are received, is objectionable.

My invention consists in combining with the ways of a store-service a chute or conductor extending from the way to the desk or station, receiving the carriers from the way and directing them downward, and provided at the lower end with a cushion to prevent injury to the carriers and noise from the stoppage thereof. The said conductor A may be a continuous tube of wood, metal, paper, or other material; but preferably consists of parallel rods or strips *a*, of metal or wood, secured at equal distance apart to and supported in position by rings or bands *b*, and suspended from a suitable support at the upper end, as shown in Fig. 1, or supported at the lower end on a standard, E, as shown in Fig. 2. Within the conductor, at the lower end, is a bumper or cushion, B, consisting of felt pads *e*, as in Fig. 1, or of a pad or block of cork or soft material, supported by a spring, *s*, as shown in Fig. 2, and one of the rods is broken away or discontinued above said cushion to leave a space or opening and for withdrawal of the carrier. As shown, the conductor is arranged at the terminus of the way C, leading from the counters to the cashier's desk X, to receive the carriers which pass from the way into the conductor, and are conducted thereby to the desk, the open tube or chute serving to direct the carriers without noise or rattling, and the cushion B arresting the carrier without shock or noise.

To prevent a second ball from dropping upon one already on the cushion *e*, I in some cases use a basket, H, Fig. 2, inclining said cushion and projecting it to one side, so that the ball may pass into the basket from the cushion, which breaks its fall, leaving the cushion unobstructed for the reception of the succeeding ball.

The conductor is shown in Fig. 1 at the end of the route and connecting directly with the way C, leading from the counters; but a conductor may be arranged at each station or counter *y*, and receive the carriers for such counter, passing on the return-way D, as shown in Fig. 2. In this case it is advisable to connect the conductor with a short rail-section, D′, onto which the carriers are directed from the main way D by automatic switches *h*, operated only by the carriers intended for the adjacent counter.

Where more than one floor is occupied, a single clerk may be made to serve for both floors by extending the conductor A through the floor Z of the upper room to the room below and placing the cashier's station in said room, so that but one desk is required and loss of

floor-space in the upper salesroom is avoided. It will of course be understood that in such case elevating appliances T, Fig. 1, at the cashier's desk, to return the carriers to the way D, are desirable.

I claim—

1. The combination, with the way and station of a store-service apparatus, of a tubular conductor extending from the way to the station, and provided with a bumper or cushion at the lower end, and with a receptacle adjacent to said bumper, substantially as set forth.

2. The combination, with the way of a store-service apparatus, of a conductor consisting of parallel rods or strips, extending from the way to the desk or station, and having a cushion and opening, *x*, at the lower end, and receptacle adjacent to said opening, substantially as described.

3. The combination, with the ways of a store-service apparatus, of a cashier's desk in a room below the upper salesroom, and a tubular conductor leading from the way through the floor of the salesroom to the cashier's desk below, substantially as set forth.

4. The combination, with the way of a store-service, of a tubular conductor for the carriers, leading downward to the desk, and having a cushion at its lower end, and an elevating device for raising the carriers to the return-way, substantially as described.

5. The combination of the ways arranged in rooms on different floors, and a desk or station in the lower room, and a conductor leading downward from the way in the upper room to the station in the room below, substantially as described.

6. The combination, with the conducting-tube leading downward from the way, and provided with a cushion and a lateral orifice at the lower end, of a receptacle adjacent to said orifice, substantially as described.

7. The combination of the conductor having an orifice at the lower end, and a cushion, and a basket extending to one side, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

WILLIAM S. LAMSON.

Witnesses:
E. F. ENDICOTT,
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