

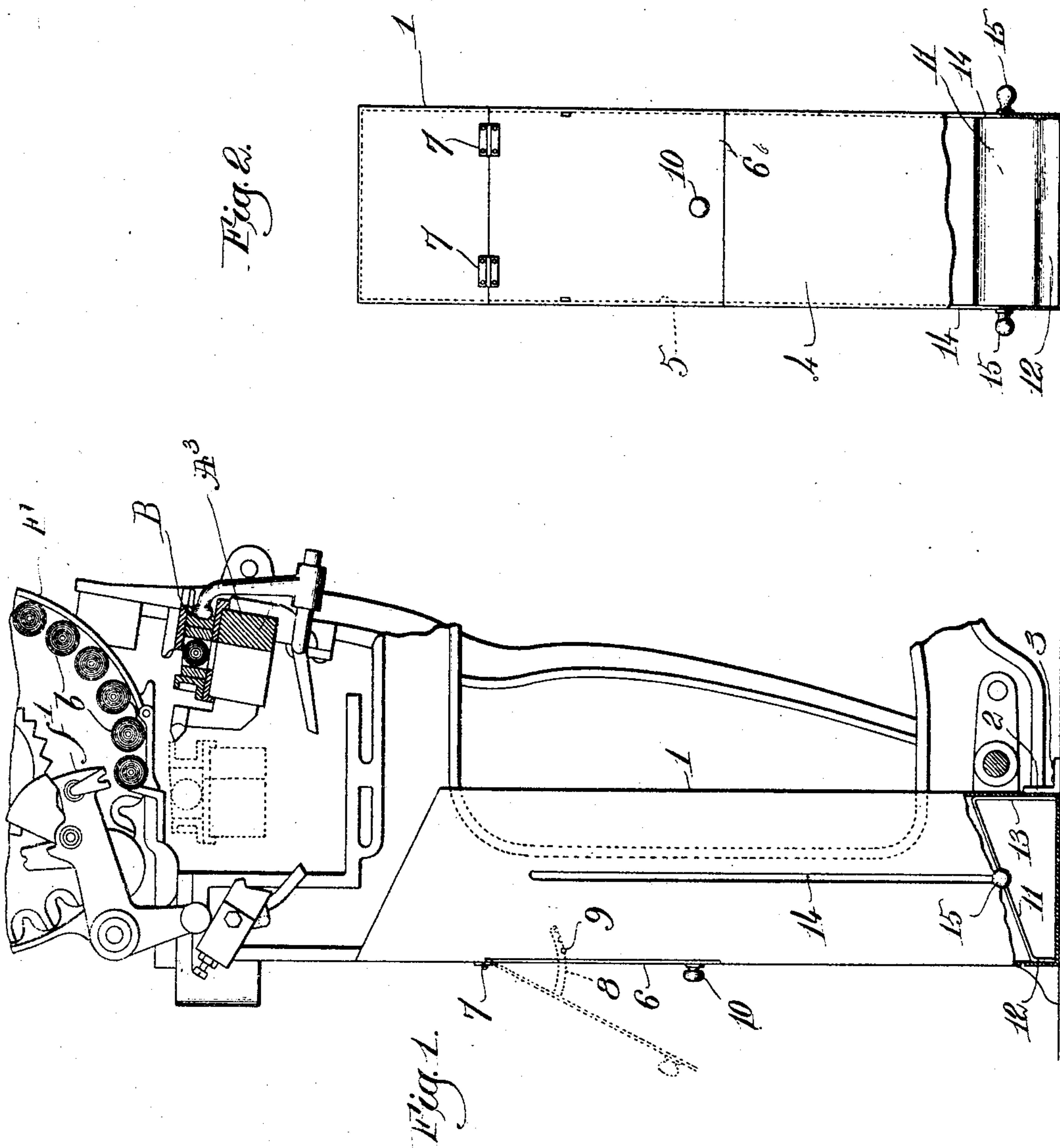
No. 779,628.

PATENTED JAN. 10, 1905.

M. L. STONE.

BOBBIN RECEPTACLE FOR AUTOMATIC LOOMS.

APPLICATION FILED SEPT. 28, 1904.



Witnesses:
Thomas J. Drummond
W. C. Linnford

Inventor:
Melvin L. Stone,
by Henry Gregory, Att'y.

UNITED STATES PATENT OFFICE.

MELVIN L. STONE, OF LOWELL, MASSACHUSETTS, ASSIGNOR TO
DRAPER COMPANY, OF HOPEDALE, MASSACHUSETTS, A COR-
PORATION OF MAINE.

BOBBIN-RECEPTACLE FOR AUTOMATIC LOOMS.

SPECIFICATION forming part of Letters Patent No. 779,628, dated January 10, 1905.

Application filed September 28, 1904. Serial No. 226,342.

To all whom it may concern:

Be it known that I, MELVIN L. STONE, a citizen of the United States, and a resident of Lowell, county of Middlesex, State of Massachusetts, have invented an Improvement in Bobbin-Receptacles for Automatic Looms, of which the following description, in connection with the accompanying drawings, is a specification, like characters on the drawings representing like parts.

This invention has for its object the production of a receptacle or box to receive the filling-carriers or bobbins ejected from time to time from the running shuttle of an automatic filling-replenishing loom, the construction being such that the contents may be readily removed as may be necessary. These receptacles are made quite deep and stand upright on the floor in such position that the bobbins fall into the open mouth thereof when they are ejected from the shuttle. In order to reach the bobbins, the weaver or other attendant has to stoop over and reach down some distance into the receptacle, the operation becoming very tiresome, as the bobbins are not readily accessible, and the receptacle will often be tipped or tilted forward to assist the weaver in reaching bobbins, thus displacing the receptacle. In my present invention the receptacle is provided with a movable bottom which can be readily raised to a convenient height, and a covered opening is made in one of the walls, through which the contents can be withdrawn when the bottom is lifted. Means are provided to guide the bottom in its movement and also to give it an inclination which will direct the bobbins to the discharge-opening. A receptacle of this character is designed to be securely fastened to the floor in proper position to receive the bobbins, so that it will be a permanent fixture and always in readiness for use. The receptacle is more particularly intended for use with "feeler-loom," so that the discharged bobbin can be thrown far enough from the shuttle to drag out the length of filling severed by the thread-cutting means.

Figure 1 is a partial transverse sectional

view of a portion of a loom provided with automatic filling-replenishing mechanism with a bobbin-receptacle embodying my present invention applied thereto, the receptacle being partly broken out to show the construction of the movable bottom; and Fig. 2 is a front elevation of the receptacle shown in Fig. 1, the front wall of the receptacle being broken out at the bottom.

Referring to Fig. 1, the lay A^3 , cut away beneath the slotted bottom of the replenishing shuttle-box B, the filling-feeder F for the filling-carriers or bobbins b , and the transferrer f' may be and are of well-known construction, an ejected filling-carrier being discharged from the shuttle S through the bottom of the shuttle-box when a fresh filling-carrier is inserted. At such time the lay is in dotted-line position, Fig. 1, and the receptacle for the spent bobbin then receives it. I have shown the receptacle as an elongated upright rectangular box 1, preferably made of sheet metal and having an open top or mouth and rigidly secured to the floor by attached brackets 2, fastened to the floor by screws 3, the receptacle being so positioned that the discharged bobbins will be directed therein through its open mouth. One of its walls, preferably the front wall 4, is provided with an opening 5 (see Fig. 2) near its top and extending across the receptacle from one to the other side wall, a cover 6 for said opening being hinged at its upper edge at 7. In order to hold the cover open, I provide it with a notched latch 8, Fig. 1, adapted to engage a pin 9 on the side wall when the cover is swung outward by the knob 10 into dotted-line position, Fig. 1. The bottom 11 of the receptacle is vertically movable therein, and to guide it and also maintain it inclined from back to front, as shown in Fig. 1, the front and rear edges are bent down in parallelism, as at 12 13, to slide in the receptacle. The bent-down portions or guides 12 13 also support the bottom under normal conditions, and as the guide 13 is the longer the bottom is inclined toward the front of the receptacle. Upright slots 14 are made in the side walls of the latter, and through said slots extend the

shanks of heads or handles 15, which are rigidly secured to the bottom 11. When the attendant wishes to empty the box, she swings the cover 6 outward (see dotted lines, Fig. 1) 5 and grasping the handles 15 raises the bottom 11, lifting it and the bobbins in the receptacle till opposite the opening 5, through which the bobbins pass into a basket or into the apron of the attendant. The bottom is then lowered, 10 the latch 8 released from the pin 9, and the cover swings back into normal position.

By the construction shown and described the bobbins are readily and quickly removed from the receptacle at a convenient height, 15 and the inclination of the bottom causes all of the bobbins thereon to slide forward to the opening, which by extending across the front of the receptacle affords a free exit for the contents. As no tipping of the receptacle is necessary, it can be secured in proper position and 20 is always ready for use.

Having fully described my invention, what I claim, and desire to secure by Letters Patent, is—

25 1. In a loom provided with mechanism to discharge spent filling-carriers or bobbins from the running shuttle, a stationary, upright receptacle having an open top to receive the bobbins when so discharged, one of the 30 walls of the receptacle having an opening for the manual withdrawal of its contents, and a movable bottom for said receptacle, said bottom when raised bringing the bobbins thereon opposite said opening.

35 2. In a loom provided with mechanism to discharge spent filling-carriers or bobbins from the running shuttle, a stationary, upright receptacle having an open top to receive the bobbins when so discharged, one of the 40 walls of the receptacle having an opening for the manual withdrawal of its contents, a movable, inclined bottom for said receptacle, means to guide the bottom and to maintain it inclined, and externally-accessible means to elevate the bottom and thereby bring the con- 45 tents of the receptacle opposite the opening in its wall.

3. A receptacle for automatically-discharged bobbins from a loom, consisting of an up-

right, elongated box having an open top and 50 an opening in one of its walls, a movable cover for said opening, a vertically-movable bottom within the receptacle, inclined toward the wall having said opening, guides on the 55 bottom to cooperate with the walls of the box and position the bottom, and means to effect the vertical movement of the bottom.

4. A receptacle for spent loom-bobbins, consisting of an upright, elongated box having an open top, upright slots in its opposite side 60 walls, and an opening in its front wall extended from one to the other side wall, a cover for said opening, a vertically-movable bottom within the box and inclined from back to front, 65 and lifting-handles extended through the slots in the side walls and secured to the bottom, elevation of the latter to the opening permitting the contents of the box to slide off the bottom through said opening when the cover 70 is lifted.

5. A receptacle for spent loom-bobbins, consisting of an upright, elongated box having an open top, upright slots in its opposite side 75 walls, and an opening in its front wall extended from one to the other side wall, an external, swinging cover for said opening, a device to hold the cover swung out, an inclined, vertically-movable bottom within the box, attached 80 handles extended through the slots, to enable the bottom to be raised and lowered, and means to guide said movable bottom and maintain it inclined.

6. A receptacle for spent loom-bobbins, consisting of an upright, elongated box having an open top, and a discharge-opening in one of 85 its walls and extended from one to the other side wall, a vertically-movable bottom within the box and inclined toward the wall having said opening, and means to effect vertical movement of the said bottom from the exterior 90 of the box.

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

MELVIN L. STONE.

Witnesses:

ALBERT O. HAMEL,
J. L. LAPIERRE.