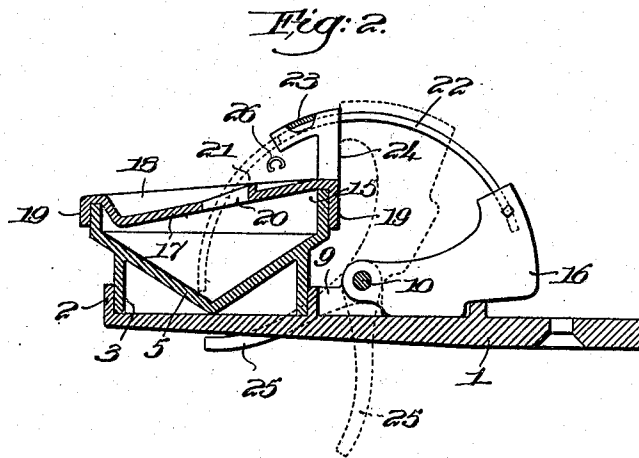
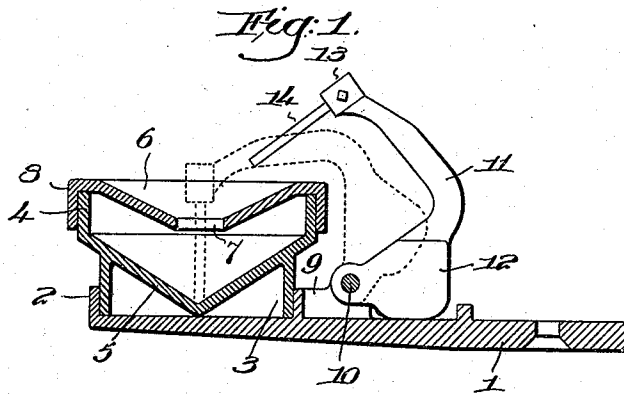


L. S. BURBANK.
HOLDING AND DELIVERING MEANS FOR RING TRAVELERS.
APPLICATION FILED MAY 19, 1909.

930,935.

Patented Aug. 10, 1909.



Witnesses,
Edward F. Allen.
Joseph M. Ward.

Inventor,
Louis S. Burbank,
By Henry Ferguson.
Atty.

UNITED STATES PATENT OFFICE.

LOUIS S. BURBANK, OF HOPEDALE, MASSACHUSETTS, ASSIGNOR TO DRAPER COMPANY, OF HOPEDALE, MASSACHUSETTS, A CORPORATION OF MAINE.

HOLDING AND DELIVERING MEANS FOR RING-TRAVELERS.

No. 930,935.

Specification of Letters Patent.

Patented Aug. 10, 1909.

Application filed May 19, 1909. Serial No. 497,020.

To all whom it may concern:

Be it known that I, LOUIS S. BURBANK, a citizen of the United States, and resident of Hopedale, county of Worcester, State of Massachusetts, have invented an Improvement in Holding and Delivering Means for Ring-Travelers, of which the following description, in connection with the accompanying drawing, is a specification, like characters on the drawing representing like parts.

This invention relates to an attachment for ring-spinning or twisting frames, for holding in a convenient and protected manner the small steel travelers which are adapted to travel around and upon the rings in the operation of the frame.

When a traveler burns off, breaks or otherwise becomes useless the attendant must replace it by a new one which is snapped or sprung into place on the ring, the travelers differing in shape and size for the work to be performed, but in any case they are relatively small and are easily lost through inattention or willful carelessness on the part of the attendant. A supply of the travelers must be kept within convenient reach, for use when needed, and as they are curved pieces of metal somewhat like split rings they at times hook or chain together in a loose mass, from which single travelers are usually detached by lifting such a bunch or chain between the thumb and finger and shaking it to and fro. This method is extremely wasteful, as often more of the travelers will drop to the floor than will be used on the frames, resulting in the aggregate to a considerable sum per year.

My present invention has for its object the production of simple and effective means for holding the travelers in reserve and for delivering them in small quantities from such reserve supply when required for immediate use, thereby obviating waste and at the same time facilitating the handling of the travelers.

Figure 1 is a longitudinal sectional view of traveler holding and delivering means embodying one form of my invention; Fig. 2 is a similar view of a modification thereof to be referred to.

Referring to Fig. 1, an elongated bracket 1, conveniently a casting, is designed to be fixedly attached to some convenient part of the frame work of a spinning or other ring-frame, said bracket having an upturned annular lip 2 to snugly receive and position the base 3 of

a traveler holder or receptacle 4, preferably cylindrical in shape and having a concave bottom 5, shown as an inverted cone. A removable dished or concave cover 6, having a central outlet aperture 7, is provided with a depending peripheral flange 8 to snugly fit the receptacle 4, as shown, the travelers in bulk being loaded into the receptacle after which the cover is applied thereto. At one side of the lip 2 the bracket 1 is provided with an upturned ear 9 on which is pivoted horizontally at 10 a bent arm or carrier 11 having an enlarged or counterweighted portion 12 and a hollow boss 13 at its free end, in which is fixed a short rod 14 of magnetic material, such as a magnetized bar of steel. The carrier swings in a vertical path into dotted line position, to move the magnetic extractor 14 through the aperture 7 into the receptacle 4 as shown by dotted lines, such movement being effected manually by the operator tending the frame, the counterweight 12 returning the carrier and extractor to full line position. Upon the entrance of the extractor into the receptacle one or more of the travelers will cling to the magnetic extractor and will be withdrawn with it when the carrier swings back to normal position, so that the operator can pick off a traveler from the extractor. When the latter is raised from the mass of travelers in the receptacle quite a bunch may be raised, but the bunch will be broken up and removed in greater part from the extractor as it is withdrawn through the outlet aperture so that only a few at most will cling to it throughout its retreat to normal position. The shaking of the spinning frame and the lifting of a bunch of travelers from the mass from time to time serves to separate them should they become linked together in chain form, and the incline of the bottom 5 to the central point of the receptacle causes the travelers to collect in the path of the extractor. As will be manifest the reserve supply in the receptacle 4 is protected from waste, and also from improper handling by operatives.

In Fig. 2 the main features of construction are substantially as shown in Fig. 1, so far as concerns the bracket and the receptacle, except that the latter is truncated at 15, and inclined away from the extractor carrier 16, horizontally pivoted at 10 as before on ear 9, and weighted to normally stay in the full line position. The cover 17 is made with a raised edge 18 and a depending flange 19,

the latter fitting around the truncated receptacle, the edge 18 being deepest at the lower side of the receptacle to form a kind of pan, having an outlet 20 surrounded on its sides and upper end by a slight curb 21. A curved extractor 22 of magnetic material is fixed in the carrier 16, said extractor being an arc of a circle having the pivot 10 as its center and of sufficient radius to pass through the aperture 20 and down to the bottom 5 of the receptacle when the carrier is swung up into dotted line position. Said extractor slides in a stripper 23, shown as a short curved tube supported on an upright 24 on the cover, the free end of the extractor being preferably housed within the stripper when the carrier is in normal position. When the carrier is swung up, by means of a finger-piece 25 the extractor is moved down into the receptacle to attract and bring up from the supply in the latter a few travelers, and as they reach the stripper 23 they will be swept off the extractor, as shown at 26, and drop onto the pan-like cover 17, sliding down to its deepest part in readiness to be taken therefrom by the attendant one at a time when needed. As the stripped travelers are delivered onto the cover above the aperture 20 the curb 21 prevents them from dropping back through the aperture as the vibration of the frame shakes them down to its lowest part within the deep portion of the flange 18. In the modification the travelers are picked up from the pan-like cover as required, while in the structure shown in Fig. 1 the travelers are picked off the extractor to which they cling.

Both forms of the invention herein shown are simple in construction, comprise a small number of parts, and are effective for the purpose designed.

Various modifications in details of construction may be made by those skilled in the art without departing from the spirit and scope of my invention as set forth in the annexed claims.

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

1. The combination with a traveler holder, and a removable cover therefor having an opening, of a magnetic extractor, and a swinging carrier therefor manually movable to introduce the extractor through the opening of the cover into the holder to withdraw

therefrom one or more travelers adhering by magnetic attraction to the extractor, the edges of the opening in the cover acting to prevent removal of a bunch of travelers from the holder.

2. The combination with a covered receptacle to hold loose travelers in bulk, of a manually operated, magnetically acting extractor to withdraw from the receptacle one or more travelers attached thereto, and means to remove automatically such extracted travelers from the extractor and position them exteriorly to the receptacle.

3. The combination with a traveler receptacle having a concave bottom and an apertured cover, of manually operated, magnetically acting extracting means movable through the aperture in the cover into and out of the receptacle to attract and remove therefrom one or more of the travelers and position them exterior to the receptacle, the edges of the aperture in the cover acting to prevent removal of a bunch of travelers from the receptacle.

4. The combination with a traveler receptacle having a concave bottom and a removable cover having an outlet opening above the deepest part of the bottom, of a counterweighted, swinging carrier, and a magnetic traveler-extractor mounted on said carrier and manually movable into the receptacle through the outlet opening, to attract and remove one or more travelers from the receptacle when the carrier is returned by its counterweight to normal position, the sloping bottom directing the travelers in the receptacle into the path of the extractor.

5. The combination with a traveler receptacle having a concave bottom and an inclined pan-like cover having an opening provided with a raised curb, of a pivotally-mounted magnetic extractor manually movable into the receptacle through such opening, to attract and withdraw one or more travelers, and a stripper to clear the extractor and cause the travelers removed therefrom to drop onto the pan-like cover.

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

LOUIS S. BURBANK.

Witnesses:

ALBERT C. RHODES,
E. D. OSGOOD.