B. E. BYRD.

RECEPTACLE FOR TRAVELERS.

APPLICATION FILED OCT. 23, 1913.

1,111,946. Patented Sept. 29, 1914.

Fig. 1.

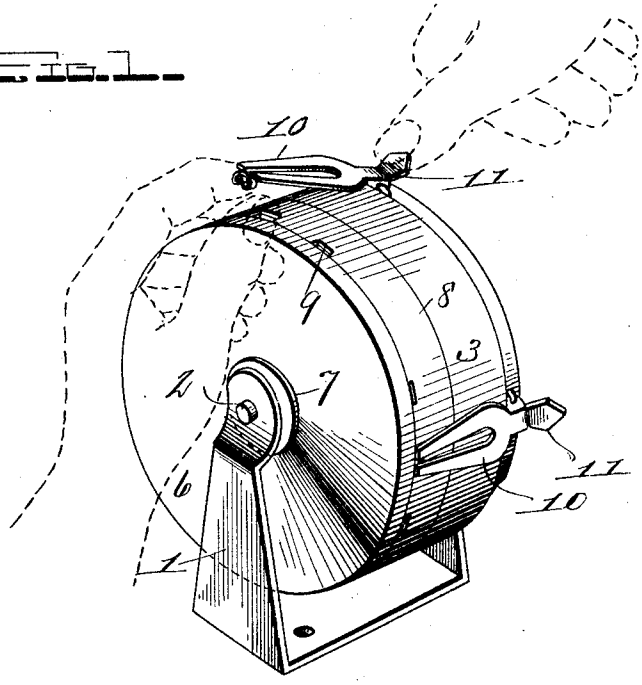


Fig. 2.

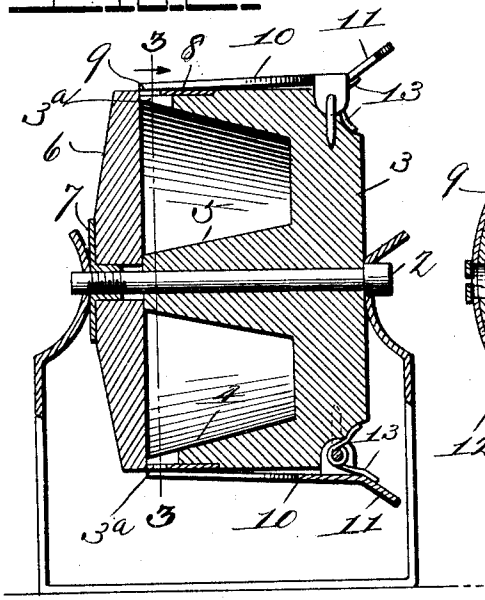
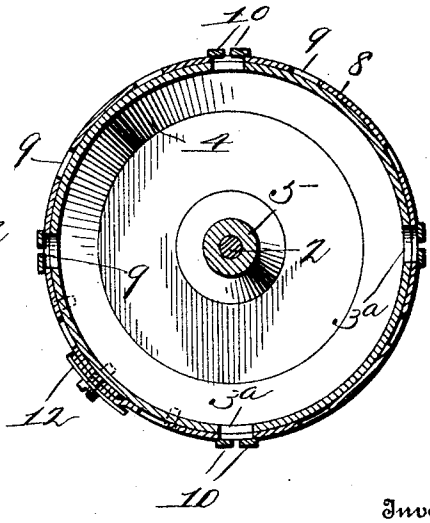


Fig. 3.



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UNITED STATES PATENT OFFICE.

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RECEPTACLE FOR TRAVELERS.

1,111,946. Specification of Letters Patent. Patented Sept. 29, 1914.

Application filed October 23, 1913. Serial No. 796,969.

To all whom it may concern:

Be it known that I, BRITTON E. BYRD, a citizen of the United States, residing at Durham, in the county of Durham and State of North Carolina, have invented a new and useful Improvement in Receptacles for Travelers, of which the following is a specification.

This invention relates to a receptacle adapted to receive and hold the small split rings known as travelers and which are used upon spinning rings. Owing to the shape of these travelers it is difficult to pick one of them from a large number, especially as when placed in a box they usually become more or less entangled, one hanging upon another, and in attempting to remove one from the box for the purpose of placing it upon the ring a number of others are generally brought out with the one picked up, and fall upon the floor.

This invention is designed both to prevent waste in using the travelers and also to save the time of the operator, and the object of the invention is to draw the travelers from a suitable receptacle and to present them to the operator one at a time and in such position and by such means that they may be very easily taken off by him.

With this object in view, the invention consists of a revolving receptacle adapted to receive the travelers and provided with suitable openings in its periphery through which they may escape, said openings being normally guarded by magnets, and the magnets being pivoted so that any one of said magnets may by pressure of the thumb be lifted from its normal position over said opening into a position in which the traveler attracted to and held by the magnet may be readily grasped between the fingers.

The invention also consists in the novel features of construction hereinafter described, pointed out in the claims and shown in the accompanying drawings in which,

Figure 1 is a perspective view illustrating the manner of removing a traveler therefrom, the hands of an operator being indicated in dotted lines. Fig. 2 is a vertical section through the device. Fig. 3 is a section on the line 3—3 of Fig. 2.

In these drawings, 1 represents a suitable bracket comprising spring end members, which support a rotatable shaft 2, said shaft being removable from the bracket by springing outwardly one of the bracket ends. Mounted upon the shaft and rotatable therewith is a cylindrical receptacle having one solid end, the inner side walls of the receptacle sloping inwardly from the open end of the receptacle to the said solid closed end. A truncated cone 5 occupies the central portion of the receptacle and the shaft 2 passing longitudinally through said cone and said cone is preferably integral with the receptacle end, the said receptacle being cut from wood or molded or otherwise formed from any suitable nonmagnetic material. An end portion of said shaft is provided with suitable threads and a closure cap 6 for the open end of the receptacle threads upon said threaded portion of the shaft 2. When this cap is formed of wood, I preferably provide a metal threaded bushing for said cap, in the form of a circular plate 7 the center of which is pressed laterally thereby forming a sleeve or bushing in which threads may be cut. But it will be obvious that any form of threaded bushing can be employed, or if the said cap is formed of a suitable material the threads may be cut directly in the shaft opening formed in the cap. The receptacle 3 is provided with suitable openings 3^a which are preferably formed by notching the periphery of the receptacle and into said openings the travelers are thrown when the reciptacle is revolved, each opening being of such a size as to receive one of the travelers. By inclining the walls of the receptacle surrounding the cone the travelers are guided to said openings, and while the travelers when massed together become tangled so as to make it difficult to pick up one of them alone they readily separate when shaken. But in order that said travelers may not be thrown through said openings and thereby be scattered upon the frame of the spinning machine each opening is normally closed and guarded by the poles of a permanent magnet 10. There are as many of these magnets as there are openings 3^a and said magnets are pivotally mounted upon the periphery of the receptacle at their bow portions, said portions being extended, the extensions 11 being slightly curved transversely to form thumb pieces, by means of which the magnets may be rocked upon their pivotal points.

Usually the travelers used in a mill will be of such uniform size that the construction above described would be adapted for use with sizes of travelers used but in order

to adapt the device for use in all mills and also to allow for the possibility of a particular mill using travelers which vary considerably in size I slip upon the receptacle 1 a band 8, preferably formed of celluloid or some similar material and which is provided with a plurality of notches 9 of graduated sizes, having as many of these notches of each size as there are notches 3, and said notches being so spaced that only notches 9 of a similar size will register at the same time with the notches 3^a of the receptacle. By using said band the notches 3^a can be cut to receive the largest size travelers, and by shifting the band 8 the notches 9 of the proper size can be brought into alinement with the notches 3^a to permit passage of the travelers of the size to be held by the receptacle. This band may be continuous and simply slipped into position or as shown the ends of said band may be secured under a plate 12 secured by a suitable screw to the receptacle.

When the operator desires a traveler he simply depresses the thumb piece of the uppermost magnet 10 moving it into the position shown in Fig. 1, which movement lifts through the opening 9 the traveler adhering to the poles of the magnet and then grasping said traveler by the fore-finger and thumb of the other hand, readily slipping it from off the ends of the magnet. The magnet is then allowed to drop back into position and the receptacle is revolved by the hand so that when another traveler is desired it can be readily obtained as the magnets are always normally holding a traveler in position to be drawn outwardly when the magnet is rocked upon its pivotal point.

It will be understood that the magnets are provided with suitable springs, such as indicated at 13 adapted to hold them normally closed against the periphery of the receptacle.

What I claim is:—

1. A device of the kind described comprising a rotatable receptacle, having peripheral openings and a plurality of magnets mounted upon the periphery of said receptacle and registering with said openings, said magnets being capable of movement relative to the receptacle.

2. A traveler receptacle comprising a rotatable cylinder having openings in its periphery, and pivoted magnets the poles of which normally overlap said openings.

3. An article delivering device comprising a rotatable receptacle having delivery orifices in its periphery, and permanent magnets pivotally mounted upon the periphery of the receptacle, the poles of each magnet normally overlapping one of said delivery orifices, and thumb pieces carried by the pivoted end portions of said magnets.

4. A device of the kind described comprising a rotatable receptacle having discharge openings in its periphery, a band rotatably mounted upon said receptacle having openings of graduated sizes adapted to be brought into registry with the openings in the receptacle and spring pressed pivoted magnets, the poles of which extend transversely across said band and overlie said openings.

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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents. Washington, D. C."