P. H. BROWN. CAPSULE FILLER.

APPLICATION FILED JAN. 21, 1908.

906,504.

Patented Dec. 15, 1908. 2 SHEETS-SHEET 1. Inventor, Witnesses:

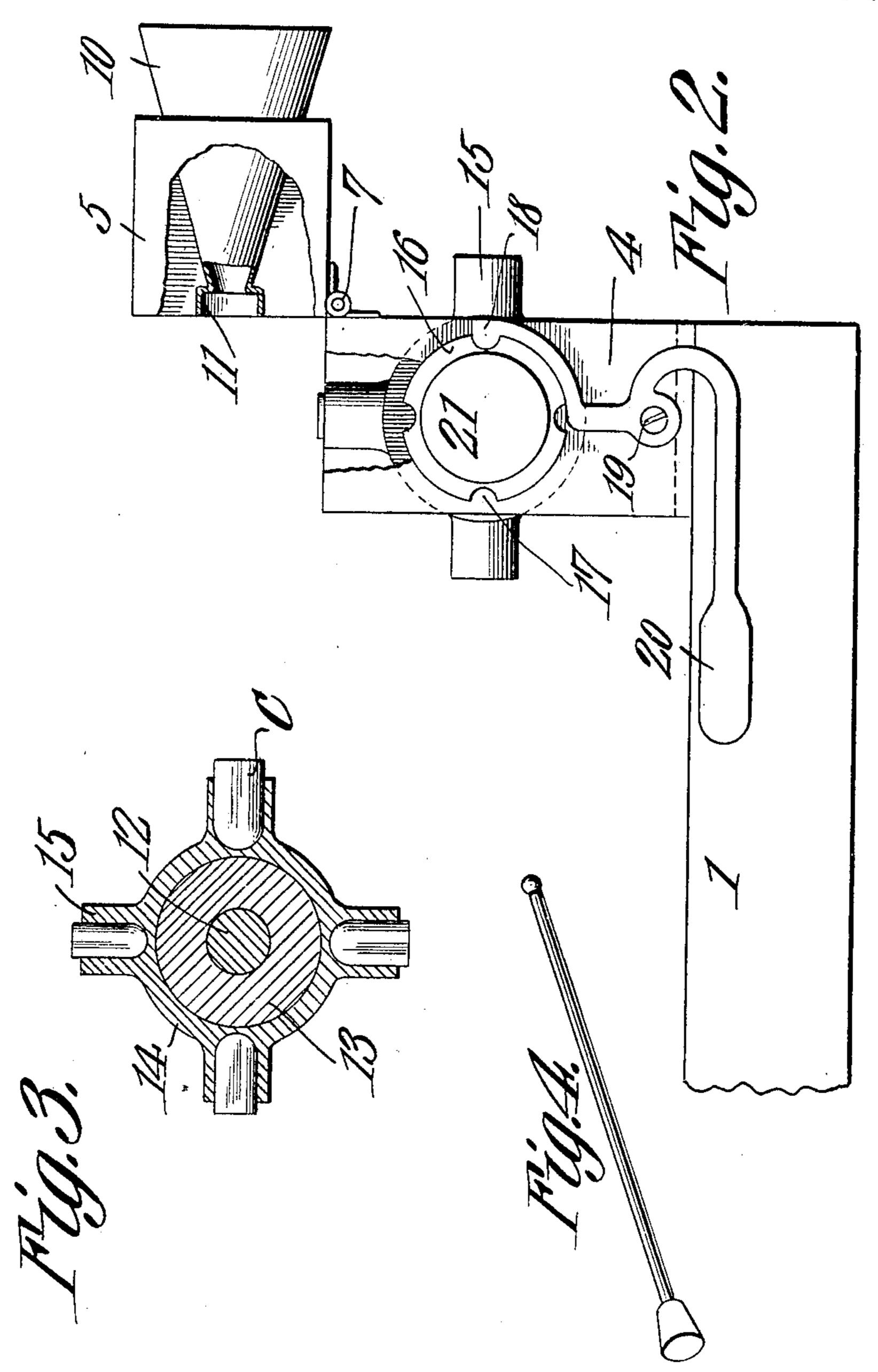
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Witnesses:

R.M. Weiott

Patrick II. Brown to.

34 Cashor to

attorneys.

UNITED STATES PATENT OFFICE

PATRICK HENRY BROWN, OF TEMPLE, TEXAS.

CAPSULE-FILLER.

No. 906,504.

Specification of Letters Patent.

Patented Dec. 15, 1908.

Application filed January 21, 1908. Serial No. 411,965.

To all whom it may concern:

Be it known that I, Patrick Henry Brown, a citizen of the United States, residing at Temple, in the county of Bell and State of Texas, have invented a new and useful Capsule-Filler, of which the following is a specification.

This invention relates to capsule fillers.

The object of the invention is to provide a simply constructed and thoroughly efficient apparatus of this character in the use of which capsules may with rapidity and exactness be filled with medicine, or the like, without loss and without the necessity of the operator having to resort to the usual methods employed for this purpose. Furthermore, to adapt the apparatus for filling capsules with equal facility from the largest to the smallest size, and without liability of injuring the capsules in any particular.

With the above and other objects in view, as will appear as the nature of the invention is better understood, the same consists in the novel construction and combination of parts of a capsule filler, as will be hereinafter fully

described and claimed.

In the accompanying drawings, forming a part of this specification, and in which like characters of reference indicate correspond30 ing parts, Figure 1 is a view in perspective of a capsule filler constructed in accordance with the present invention. Fig. 2 is a view in side elevation, on an enlarged scale and partly broken away, of the filler. Fig. 3 is a transverse sectional view through the capsule carrier or cylinder. Fig. 4 is a perspective view of an implement that may be employed in the use of the filler.

Referring to the drawings, 1 designates an 40 ordinary pill tile or slab, such as is commonly employed by druggists, and which is provided adjacent to one end with a graduated scale 2 that is employed for the purpose of measuring off medicine into equal and proper 45 sized doses. Arranged at the end of the tile 1, adjacent to the scale 2, although it may be otherwise located on the tile, is the capsule filler, which comprises, in part, a supporting frame composed of a base 3, two standards 4, 50 and a hinged top or member 5. These parts may be of any suitable material, preferably of metal, and in this instance the base is held secured to the tile by screws 6. The top 5 is connected with the standards 4 by 55 hinges 7, and is held against accidental lifting by any suitable fastening device, such as

an ordinary hook 8 pivoted to one of the standards and that engages an eye 9 carried

by the end of the top.

The top has arranged therein a plurality of 60 funnels or tubes 10, preferably of some nonoxidizable metal, and which fit in openings in the top, which latter may be made of wood, or of metal, or of a combination of both. The lower end of each of the tubes 10, 65 which will hereinafter be designated as feeders as they operate to feed the medicine or the like to the capsules, is provided with a collar or sleeve 11 that lies flush with the under side of the top, as shown in Fig. 2, and 70 the internal diameter of which is equal to the external diameter of the largest capsule employed, while the small end of the feeder at its point of juncture with the collar is of an internal diameter exactly coinciding with the 75 like diameter of the smallest capsule used, or slightly less, and by this arrangement it will be seen that in the operation of the filler, positive feeding of the powder to capsules of any size is positively assured.

Journaled in any preferred manner in the standards 4 is a shaft 12 upon which is mounted a cylinder or core 13 (Fig. 3), or any other suitable material, and mounted upon the core, and held from turning relatively 85 thereto as the core is held with regard to the shaft, is a sleeve 14, preferably of metal, having projecting therefrom any desired number of rows of hollow studs or bosses 15, in this instance four, that constitute the capsule 90 pockets. By reference to Fig. 3, it will be seen that these pockets are of different sizes, and that they are of a depth to permit the capsules C to extend the proper distance beyond their outer ends to project into the col- 95 lars 11 on the inner ends of the feeders. The manner of constructing the cylinder herein described is merely an example of one way in which this part of the invention can be carried out, and for this reason it is to be un- 100 derstood that the invention is not to be limited to the precise arrangement shown.

At one side of the frame, in this instance the right hand side, the shaft 12 projects beyond the standard 4 and carries a disk 16 105 provided in its periphery with four notches or seats 17 that are arranged in alinement with the rows of capsule pockets. These notches are designed to be engaged by a pawl 18 pivoted at 19 to the standard 4 and 110 having a counterweighted lever or handle 20 that extends parallel along one edge of the

tile. It will be seen that by disposing the locking notches 17 in the manner described, that the successive series of pockets will be caused always to register exactly with the 5 feeders, and thus insure the proper discharge or feed of the powder or medicine thereto.

In the use of the apparatus, the ingredients of a prescription are weighed and measured and properly mixed, and then divided 10 off into doses on the scale 2, or otherwise, as may be preferred. The operator will then determine what size capsule is to be used, and when this is done the top or feeder car-rier 5 is thrown back and the appropriate 15 size or row of the pockets is brought to a vertical position, or that which will be directly under the tubes when they are in the position shown in Fig. 1. The operator then removes the caps of the capsules and inserts 20 the bodies in the pockets, and then brings the carrier 5 back to the position shown in Fig. 1. With a spatula, the successive doses are lifted and poured down the feeders,

whence they will pass, without waste, into the capsules. Should any of the medicine or powder cling to the walls of the feeders, it may be dislodged by lightly tapping upon them, or by using a small tamping rod 21, shown in Fig. 4. When all of the capsules have been filled, the carrier 5 is thrown back,

the caps applied to the filled bodies of the capsules, and the latter are then removed and placed in a suitable receptacle.

Any suitable means may be employed for turning the shaft 12 to bring the different rows of pockets under the feeders, a knurled nut 21 being employed in this instance, which is carried by the projecting end of the shaft upon which the disk 16 is mounted.

It will be seen from the foregoing description that while the device herein described is simple in character, it will be thoroughly effective for the purposes designed, and will materially lessen the labor and shorten the

45 time required for filling capsules.

I claim:—

1. A capsule filler comprising a revoluble cylinder having capsule pockets extending radially thereinto from the periphery thereof, and feeding means disposed above the 50 pockets.

2. A capsule filler comprising a revoluble cylindrical member provided with longitudinal rows of pockets extending radially into the peripheral portion thereof feeders ar- 55 ranged over the pockets, and means for causing the pockets and feeders to register.

3. A capsule filler comprising a revoluble eylindrical member provided with a plurality of rows of radial capsule pockets, and a 60 series of alining feeders movable simultane-

ously to and from the pockets.

4. A capsule filler comprising a revoluble cylindrical member provided with a plurality of rows of radial capsule pockets, and a se- 65 ries of feeders each having means to surround the mouth of a capsule.

5. A capsule filler comprising a cylindrical member provided with radial capsule pockets, and feeders disposed to register there- 70 with and to surround the mouths thereof, the discharge ends of the feeders being constructed to coact with capsules from the

largest to the smallest size.

6. A capsule filler comprising a revoluble 75 cylindrical member provided with longitudinal rows of capsule pockets of different sizes, a series of alining feeders arranged over the pockets, a disk movable with the revoluble member and provided in its periphery with 80 notches that aline with the rows of pockets, and a pawl for engaging with the notches to hold the pockets of any row in register with the series of feeders.

In testimony that I claim the foregoing as 85 my own, I have hereto affixed my signature in the presence of two witnesses.

in the presence of two witnesses.

PATRICK HENRY BROWN.

Witnesses:

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G. M. Gresham, J. W. Bonner.