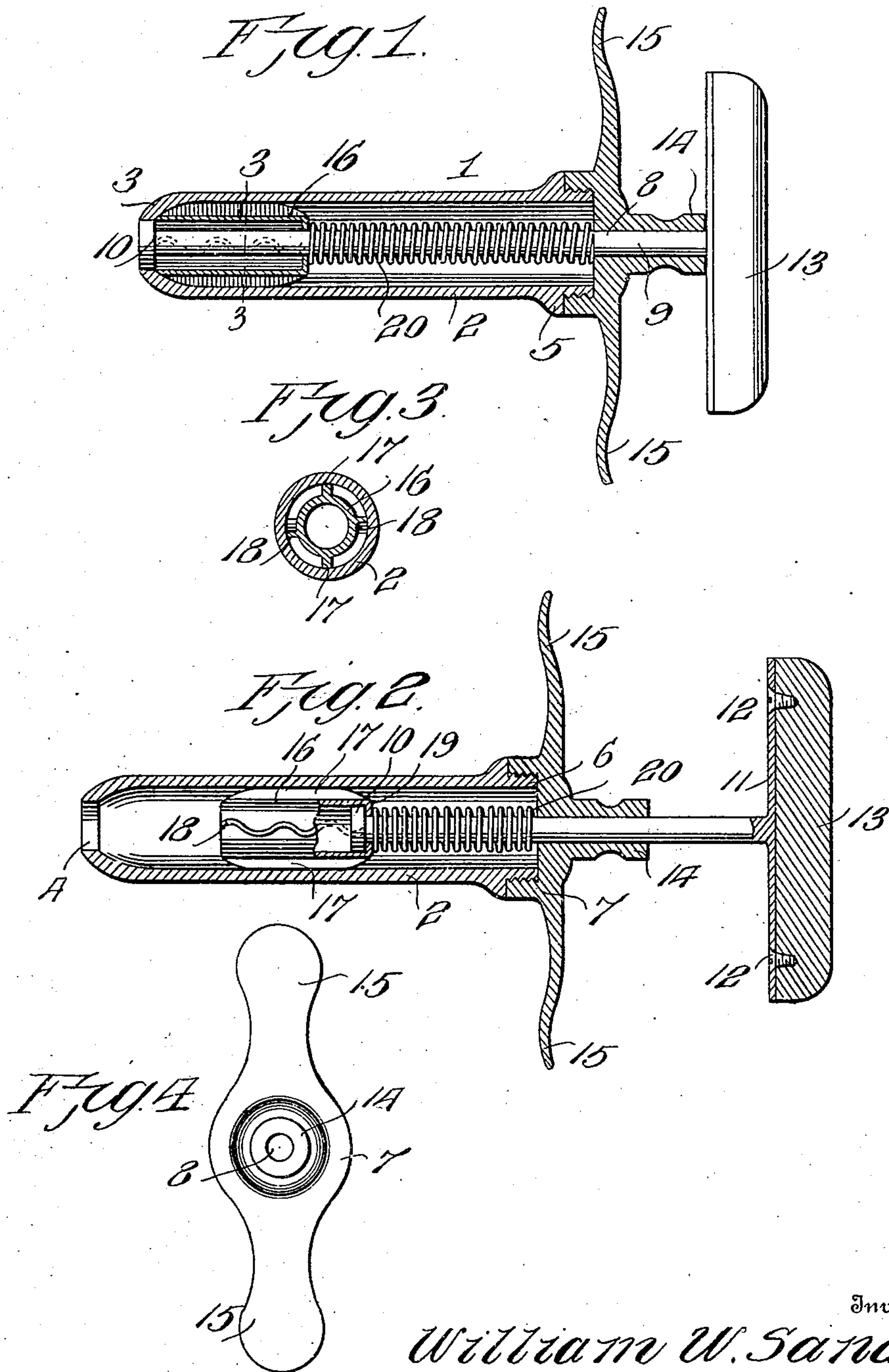


W. W. SANDS.
POWDER EJECTOR.
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935,415.

Patented Sept. 28, 1909.



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UNITED STATES PATENT OFFICE.

WILLIAM WALTER SANDS, OF SAN ANGELO, TEXAS.

POWDER-EJECTOR.

935,415.

Specification of Letters Patent. Patented Sept. 28, 1909.

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To all whom it may concern:

Be it known that I, WILLIAM W. SANDS, a citizen of the United States, residing at San Angelo, in the county of Tom Green and State of Texas, have invented new and useful Improvements in Powder-Ejectors, of which the following is a specification.

This invention relates to vaginal powder injectors, and has for an object to provide an injector of this character that can be actuated with but little exertion on the part of its operator.

A further object of my invention resides in the fact that novel means are employed for effecting a thorough discharge of powder to be ejected, and for causing effective agitating means for preventing the powder becoming clogged within its receptacle thus causing the powder to be discharged in equal proportions at each operation.

Other objects and advantages will be apparent as the nature of the invention is better set forth, and it will be understood that changes within the scope of the claims may be resorted to without departing from the spirit of the invention.

In the drawings, forming a portion of this specification and in which like numerals of reference indicate similar parts in the several views:—Figure 1 is a longitudinal section through the ejector showing the operative parts thereof in the relative position they occupy before the discharge of powder. Fig. 2 is a similar view showing the operative parts in position to discharge powder. Fig. 3 is a cross section taken on the line 3—3 of Fig. 1. Fig. 4 is a plan view of the screw cap showing the finger holds.

Referring now more particularly to the drawings, there is shown a vaginal powder injector 1 which embodies a barrel or cylinder 2 provided with a rounded or slightly tapered front end 3 in which is formed a centrally located passage 4 disposed in line with the longitudinal axis of said barrel or cylinder 2, as shown. The rear end of said barrel or cylinder 2 is provided with an annular shoulder or enlargement 5 from which extends an exteriorly threaded neck 6 with which is engaged an interiorly threaded head or closure 7 having formed therein a longitudinally extending passage 8 through which is slidably engaged a plunger 9. The plunger 9 carries at its forward end an enlargement or head 10 conforming in diameter to the diameter of the passage 4, and at the rear

end, the plunger carries a metal plate 11 to which is secured by means of screws or the like 12 a handle 13 of wood, hard rubber or suitable material.

In order to hold the handle 13 in spaced relation to the cap 7, I provide the latter with an outwardly extending neck 14 against which said handle is adapted to normally rest. The cap or closure 7 has formed integral therewith finger holds 15 so that when the plunger 9 is extended outwardly the fingers of the hand engaged with the handle 13 can be effectively engaged with the said finger holds 15 to effect a great pressure on the plunger when it is desired to extend the same.

A cylindrical magazine or powder receptacle is illustrated at 16 and is slidably mounted in the barrel or cylinder 2. The magazine or powder receptacle is of less diameter than the diameter of the barrel or cylinder 2 and is provided with oppositely disposed longitudinally extending ribs 17 upon its exterior surface to engage the walls of the barrel or cylinder so that the magazine of powder receptacle is held in spaced relation to the walls of said barrel. The magazine or receptacle 16 is provided with oppositely disposed corrugated ribs 18 which are also provided to hold the said magazine in the center of the barrel 2 in spaced relation to the walls thereof. The last named ribs, while effectively serving the purpose described, serve practically as agitators and in movement of the magazine, the powder contained in the cylinder or barrel 2 is thoroughly loosened and is thus prevented from clogging therein. The magazine or receptacle 16 is open at its front end, and at the rear, the said magazine or receptacle is provided with a head 19 in which is slidably mounted a portion of the plunger 9. In view of the construction and arrangement of parts hereinafter described by me it is obvious that the head 10 of the plunger is free for sliding movement in the magazine when the plunger is actuated. A spiral spring 20 is located in the barrel or powder receptacle 2 and surrounds a portion of the plunger 9, and bears at its ends against the cap 7 and the head 19 of the magazine.

An injector as herein set forth and described is extremely simple in construction, and is such, incident to the novel form of powder cylinder whereby uniform charges of powder can be discharged from the barrel

2. The position of the finger holds 15 with respect to the location of the handle affords means for conveniently inserting the fingers beneath the handle when it is desired to
5 withdraw the plunger 9 against the tension of the spring 20, and this construction also serves as means so that the finger holds can be grasped by the same hand with which the handle 13 is held, thus allowing the plunger
10 to be effectively operated with but little or no exertion on the part of its operator.

I claim:—

1. The combination with a powder containing cylinder having a discharge passage
15 at one end, of a spring pressed powder ejecting barrel provided with radially extending agitating ribs and with radially and longitudinally extending corrugated agitating ribs adapted to slidably engage the inner
20 walls of the cylinder.

2. A powder ejector comprising a powder

containing cylinder having a discharge passage at one end, a spring pressed barrel located in the cylinder and adapted to collect the charge of powder and discharge the same
25 from the passage, a plunger operatively connected with the barrel and provided with a head slidably mounted in a portion of the barrel, longitudinally extending ribs disposed at diametrically opposite points upon
30 the barrel and adapted for engagement with the walls of the said cylinder, and a plurality of longitudinally extending corrugated agitating ribs located at diametrically opposite points to each other and disposed at right
35 angles to the first named ribs.

In testimony whereof I affix my signature in presence of two witnesses.

WILLIAM WALTER SANDS.

Witnesses:

BARRY BONNER,
JNO. F. HOUSE.