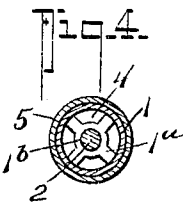
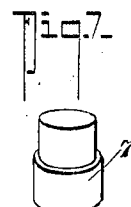
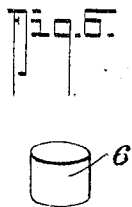
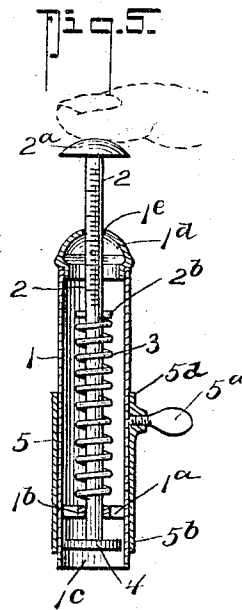
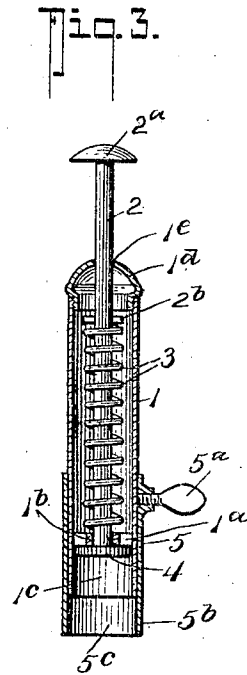
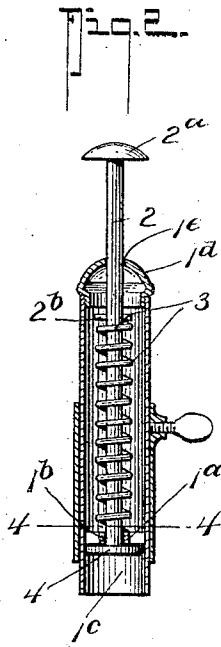
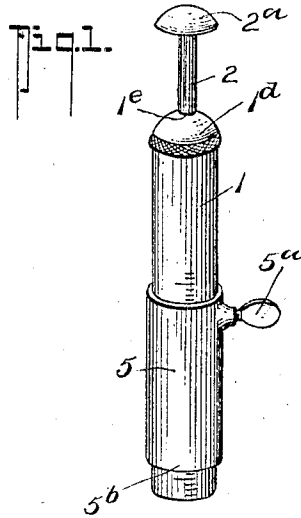


No. 851,284.

PATENTED APR. 23, 1907.

M. A. FLINN.
MEASURING AND FORMING DEVICE.
APPLICATION FILED JAN. 23, 1907.



WITNESSES:

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MICHAEL A. FLINN, OF PORTLAND, OREGON.

MEASURING AND FORMING DEVICE.

No. 851,284.

Specification of Letters Patent.

Patented April 23, 1907.

Application filed January 23, 1907. Serial No. 353,687.

To all whom it may concern:

Be it known that I, MICHAEL A. FLINN, residing at Portland, in the county of Multnomah and State of Oregon, have invented certain new and useful Improvements in Measuring and Forming Devices, of which the following is a specification.

My invention relates to certain new and useful improvements in devices for accurately measuring or dividing medicinal and other powders and forming them into shape, and it primarily has for its object to provide a device of this character of a very simple and effective construction, which can be easily and cheaply manufactured and which will readily and effectively serve its intended purposes.

Generically, my invention comprises a tubular member in which a plunger or piston is movable against the pressure of a spring and a second tubular member telescopically and adjustably held over the first tubular member, whereby it may be projected beyond the edge of the first tubular member to form an extension thereof, and means carried by the tubular members for indicating the quantity of material which the members will contain in advance of the plunger.

In its more subordinate features, my invention also includes certain novel construction, combination and arrangement of parts, all of which will be first described in detail and then be specifically pointed out in the appended claims, reference being had to the accompanying drawings, in which:—

Figure 1, is a perspective view of my invention. Fig. 2, is a central, vertical, longitudinal section thereof, showing the position of the parts when the device is to be used to form a pellet at its normal capacity. Fig. 3, is a similar view showing the second telescopic member extended to form a pellet double the capacity of that shown in Fig. 2. Fig. 4, is a cross section on the line 4—4 of Fig. 2. Fig. 5, is a vertical, longitudinal section of a slightly modified form of my invention. Figs. 6 & 7, are detail views of the pellets formed by my device when in the position shown in Figs. 2 and 3, respectively.

Referring now to the accompanying drawings in which like letters and numerals of reference indicate like parts in all of the figures, 1 designates the main forming tube which may be of any approved cross sectional form, it being shown cylindrical in the draw-

ings. The tube 1 is open at its lower end and is provided with a cross bridge or stop member 1^a spaced a definite distance in from the open end of the tube 1, so as to leave a forming chamber 1^c below the bridge member 1^a, the bridge member 1^a is centrally apertured as at 1^b to permit passage of the stem 2 hereinafter again referred to. The tube 1 has its other end closed preferably by a screw cap 1^d having a central aperture 1^e to permit passage of the stem 2. The stem 2 has a finger engaging head 2^a and a stop pin 2^b and carries a compression spring 3 between the stop pin 2^b and the bridge member 1^a. Within the compression chamber 1^c the stem 2 terminates in a piston 4.

5 designates a sleeve telescopically mounted on the tube 1 and held in position by a set screw 5^a so that by moving the lower end 5^b of the sleeve 5 beyond the forming end of the tube 1, the forming chamber 1^c is enlarged by a supplemental chamber 5^c formed by the sleeve 5, the capacity of which supplemental chamber 5^b is varied in proportion to the projection of the sleeve 5 beyond the edge of the tube 1.

In order to indicate the capacity of the chambers 1^c and 5^c, I prefer to graduate the outer surfaces of the tube 1 to cooperate with the upper edge 5^d of the sleeve 5 so that the capacity of the forming chambers can be read at a glance.

In practice, the bridge 1^a is so formed that the chamber 1^c is of a unit capacity, say 1 grain and in that event the graduations on the tube 1 may be made to read in grains so that the capacity of the forming chambers may be varied from 1 grain up and limited only by the length of the sleeve 5.

In order that a pellet of lesser contents than the forming chamber 1^c may be formed, I graduate the stem 2 near its head 2^a to cooperate with the upper edge of the cap 1^d so that by pressing down on the stem until the desired graduation of the stem is in alignment with the edge of the cap 1^d the capacity of the forming chamber 1^c may be limited so as to form a pellet of less cubical contents than the normal capacity of the forming chamber 1^c. This form of my invention is illustrated in the modified view of the drawings hereinbefore referred to.

In Figs. 6 & 7, I have shown two forms of pellet 6—7 the one form 6 being the normal size and formed in the chamber 1^c, alone

and that, 7, being of twice the normal size is formed in the chambers 1° and 5° when the parts are in the position shown in Fig. 3.

From the foregoing taken in connection with the accompanying drawings, it is thought the complete construction, operation and many advantages of my invention will be readily understood by those skilled in the art to which it appertains and I desire to say that many slight changes in the detail construction, combination and arrangement of parts may be made without departing from the spirit of the invention or the scope of the appended claims.

What I claim is:—

1. An apparatus of the class described, comprising an elongated tubular member, a cap closing one end thereof, the other end being open, a stem passing through said cap into said elongated tubular member, a piston carried by said stem, a coil spring carried by the stem within the tubular member, said piston having a finger engaging portion, means cooperating with said spring for retaining the piston at a normal distance from the open end of the longitudinal member, and a sleeve telescopically held on the outside of said elongated tubular member, substantially as shown and described.

2. An apparatus of the class described, comprising an elongated tubular member, a cap closing one end thereof, the other end being open, a stem passing through said cap into said elongated tubular member, a piston carried by said stem, a coil spring carried by the stem within the tubular member, said piston having a finger engaging portion, means cooperating with said spring for retaining the piston at a normal distance from the open end of the longitudinal member, said last named means comprising a stop pin on the stem and a bridge member within the tubular member through which the stem passes, and a sleeve telescopically held on the outside of said

elongated tubular member, substantially as shown and described.

3. An apparatus of the class described, comprising an elongated tubular member, a cap closing one end thereof, the other end being open, a stem passing through said cap into said elongated tubular member, a piston carried by said stem, a coil spring carried by the stem within the tubular member, said piston having a finger engaging portion, means cooperating with said spring for retaining the piston at a normal distance from the open end of the longitudinal member, said last named means comprising a stop pin on the stem and a bridge member within the tubular member through which the stem passes, a sleeve telescopically held on the outside of said elongated tubular member, said stem having graduations for cooperating with said cap, substantially as shown and described.

4. An apparatus of the class described, comprising an elongated tubular member, a cap closing one end thereof, the other end being open, a stem passing through said cap into said elongated tubular member, a piston carried by said stem, a coil spring carried by the stem within the tubular member, said piston having a finger engaging portion, means cooperating with said spring for retaining the piston at a normal distance from the open end of the longitudinal member, said last named means comprising a stop pin on the stem and a bridge member within the tubular member through which the stem passes, a sleeve telescopically held on the outside of said elongated tubular member, said stem having graduations for cooperating with said cap, and said tubular member having graduations for cooperating with the sleeve, substantially as shown and described.

MICHAEL A. FLINN.

Witnesses:—

P. H. EVANS,
A. T. LEWIS.