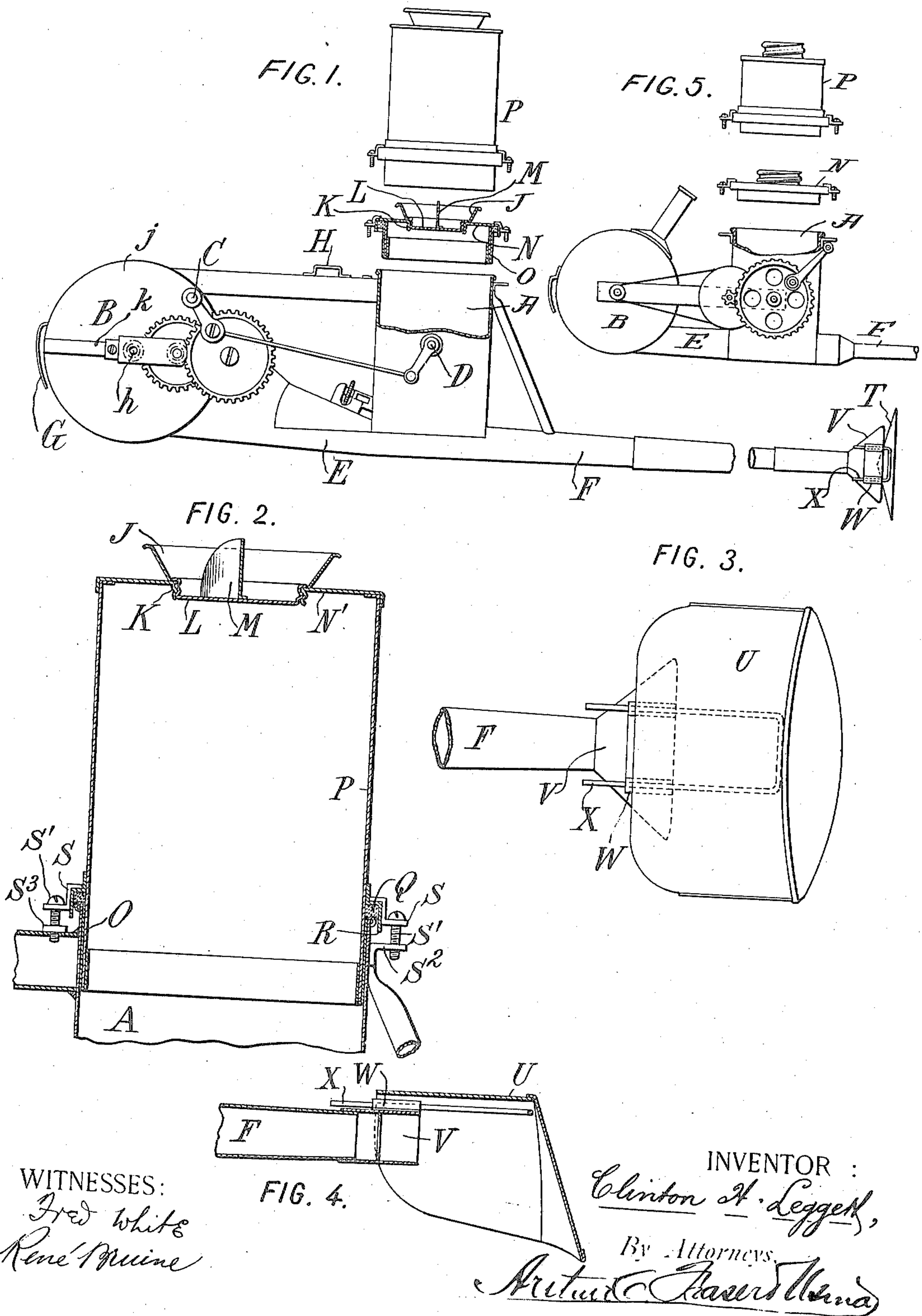


950,931.

C. H. LEGGETT.
POWDER DISTRIBUTER.
APPLICATION FILED JULY 30, 1908.

Patented Mar. 1, 1910.



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UNITED STATES PATENT OFFICE.

CLINTON H. LEGGETT, OF NEW YORK, N. Y., ASSIGNOR TO LEGGETT & BROTHER, OF NEW YORK, N. Y., A FIRM COMPRISING E. HOWARD LEGGETT AND CLINTON H. LEGGETT.

POWDER-DISTRIBUTER.

950,931.

Specification of Letters Patent.

Patented Mar. 1, 1910.

Application filed July 30, 1908. Serial No. 446,130.

To all whom it may concern:

Be it known that I, CLINTON H. LEGGETT, a citizen of the United States, residing in the borough of Manhattan, city, county, and State of New York, have invented certain new and useful Improvements in Powder-Distributers, of which the following is a specification.

This invention relates to powder distributors and similar apparatus, being especially designed for such distributors as are used in distributing insect powders on to plants or trees. Examples of such distributors are shown in my prior patents Nos. 511,781 dated January 2, 1894, 519,720 dated May 15, 1894, 535,113 dated March 5, 1895, and 568,776 dated October 6, 1896.

The accompanying drawing illustrates embodiments of the invention.

Figure 1 is a side elevation partly in section showing improvements applied to a large apparatus known commercially as Mammoth Champion. Fig. 2 is a sectional view on an enlarged scale through the extensible reservoir. Fig. 3 is a plan of a deflector with improved means for attachment to the spout. Fig. 4 is a longitudinal section of the same. Fig. 5 is a view similar to Fig. 1 showing the invention applied to a smaller style of apparatus.

It will be understood from the previous patents referred to that the reservoir A carries the powder to be used, and which may be for example paris green or sulfur powder. A fan in a fan box B is driven by rotating the crank C, which at the same time oscillates the shaft D of a valve which allows the dust to drop into the passage and be carried by the air blown through the tube E into the spout F, whence it is directed upon the plants. The apparatus is normally supported by a hook G at its rear end engaging a belt about the operator's waist, and by a strap passing from the staple H over the operator's shoulder.

It is desirable to make the apparatus as light as possible, and to make the reservoir A no larger than is necessary to carry a convenient amount of the dusting powder. Where the apparatus is to be used sometimes with one powder and sometimes with another, however, it is desirable to provide for an extension of the reservoir. Such an extension will be useful for example where sulfur powder, which is very light, is to be

used; and I provide for extending the reservoir and at the same time preserving the continuity and smoothness of the inner side of the reservoir, so that there shall be no pockets to retain the dust, and so that the reservoir may be easily emptied and cleaned. The reservoir is ordinarily square or at least rectangular in cross-section, and for convenience is provided with a circular mouth provided with a funnel-shaped flange J, at the bottom of which is a threaded flange K receiving the threaded cap L, which is provided with an upwardly extending handle M by which it is screwed into or out of place. The circular mouthpiece J is formed or attached at the center of the square or rectangular head N of the reservoir. In order to facilitate access to the reservoir in order to clean out entirely the powder which has been in use, the entire head N of the reservoir is made removable. The extension of the reservoir is effected by means of a tube P, preferably of a cross-section substantially identical with that of the reservoir. A tight joint is effected between the head N and the reservoir on the one hand or between the extension P and the reservoir on the other hand, in order to prevent the blowing of any powder out through the joint. A suitably tight joint may be effected by providing a flange O entering the upper end of the reservoir with a packing Q (Fig. 2) of cotton or felt or the like held in place by a flange R soldered or otherwise fastened in place. In order to insure a tight joint the cover of the extension is fastened down upon the reservoir with the upper edge of the latter engaging the packing Q. Provision is made for taking up the shrinkage or compacting of the packing material R which would occur in the course of time. For this purpose threaded or otherwise adjustable fasteners are provided at suitable points around the periphery, preferably one at each end. For example lugs S may be provided through which pass screws S' screwing into nuts S² and S³ respectively, the former soldered upon the forward face of the reservoir, and the latter soldered upon the handle at the rear of the reservoir. The head N' of the extension P is provided with a flared mouthpiece J similar to that of the removable head of the reservoir. The extension or contraction of the reservoir is therefore effected by remov-

ing the head N and substituting the extension, or vice versa.

Two kinds of deflectors for use on the end of the nozzle are shown. In Fig. 1, T is a conical nozzle deflector tending to spread the dust equally in all directions, while U (Figs. 3 and 4) is a scoop-shaped deflector adapted to direct the dust downwardly. The nozzle V flares laterally and fits on the end of the spout F, so that according to the angle at which it is set on the spout the flare will be horizontal or vertical or oblique. It is shown with the flare vertical in Fig. 1 and horizontal in Fig. 3. This style of nozzle is disclosed in my prior patents. According to this invention one of the flat sides of said nozzle V is provided with a pair of longitudinal tubes W, and the deflectors T and U are each provided with a pair of wires X soldered or otherwise fastened to the deflector, and with their ends free to enter the tubes W. Preferably each pair of wires X is made of a U-shaped piece fastened at the center to the deflector, and with its ends bent apart to such an extent that when slightly pressed together between the fingers it can be introduced into the tubes W, and will hold with a certain amount of friction by their tendency to spring outward. This makes a very cheap attachment, and one which can be applied or separated with the greatest ease, but which holds perfectly against the comparatively slight strains to which it is subjected.

What I claim is:—

1. A reservoir for a powder distributor having a head N covering the entire cross-section of the reservoir, said head being en-

tirely removable, in combination with an extension P having a cross-section substantially the same as that of the reservoir, and adapted to be fitted closely upon the top of the reservoir when said head is removed.

2. A reservoir for a powder distributor, in combination with an extension P adapted to fit closely upon the top of said reservoir, said reservoir and extension being separable from each other and adapted to be connected together, and a packing ring between said reservoir and extension when they are connected together to make a tight joint.

3. A reservoir for a powder distributor, in combination with an extension P adapted to fit closely upon the top of said reservoir, said reservoir and extension being separable from each other and adapted to be connected together, and a packing ring between said reservoir and extension when they are connected together to make a tight joint, and adjustable means for pressing said reservoir and said extension together to compress the packing between them.

4. In combination a nozzle having tubular parts, a deflector, and a pair of wires X fastened on said deflector and having their ends free to pass through said tubular parts and to hold the deflector in place frictionally.

In witness whereof, I have hereunto signed my name in the presence of two subscribing witnesses.

CLINTON H. LEGGETT.

Witnesses:

DOMINGO A. USINA,
FRED WHITE.