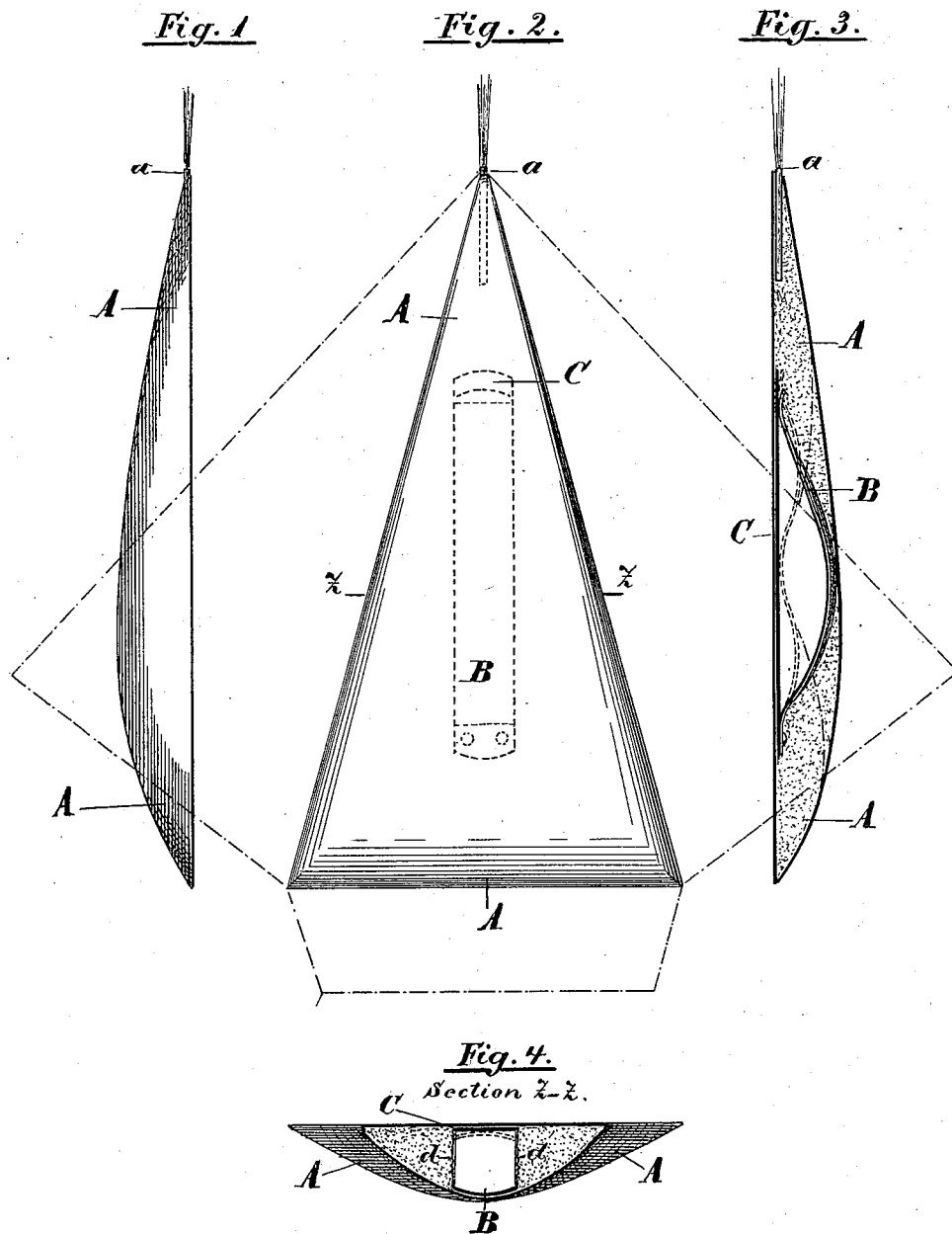


(No Model.)

T. NÄGELE.
INSECT POWDER DUSTER.

No. 522,301.

Patented July 3, 1894.



Attest:

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UNITED STATES PATENT OFFICE.

THEODOR NÄGELE, OF GÖPPINGEN, GERMANY.

INSECT-POWDER DUSTER.

SPECIFICATION forming part of Letters Patent No. 522,301, dated July 3, 1894.

Application filed January 4, 1894. Serial No. 495,728. (No model.)

To all whom it may concern:

Be it known that I, THEODOR NÄGELE, manufacturer, a subject of the Emperor of Germany, residing at Göppingen, Germany, have invented a new and useful Cornet Squirt for Insect-Powder and other Powders, (for which I have obtained patent in no country,) of which the following is a specification.

The object of the present invention is to provide a cheap device for disseminating insect-powder and other powders, which is very convenient to manipulate and well adapted to its purpose, and which, at the same time, answers as a receptacle for storing the powder. The cost of an apparatus under my invention is merely nominal, thus bringing the same within the reach of everyone.

An apparatus embodying my invention consists in a tapered bag of paper, or other material, running to a point, closed air-tight and filled with insect-powder. The same is provided with a small orifice at its point, for the escape of the powder; or the same may be provided, at this point, with a thin tube of paper, or a straw, in order that the opening will not become enlarged too much when the point of the bag should become battered. The powder is ejected by means of a bent curved spring, arranged in the interior of the bag, one end of the said spring being secured to a plate, while the other free end of the same points toward the point of the bag. In order to keep the powder away from the spring and its plate, whereby the operation of the same would be interfered with, the said spring and plate are enveloped with a suitable covering of paper, linen, or other suitable material. When the bent spring is compressed, by pressing upon the bag at the proper point, the air in the covering is compressed and forced outward between the spring and its plate at the outer free end of the former, and toward the point of the bag or bellows, whereby a part of the same is driven through the orifice in the bag, carrying with it a quantity of the powder.

In the accompanying drawings—Figures 1, 2, 3, and 4 represent a bellows-bag, for dusting insect-powder, embodying my invention, the same being shown in two elevations, a longitudinal and a transverse section.

The bag, A, is triangular in shape (the development of the same being indicated in

dotted lines in Fig. 2). A small tube, *a*, is arranged at the point of the bag. The spring, B, is secured to the spring-plate, C, at one end, and the parts, B and C, are enveloped in a covering, *d*, of paper, linen, or the like, leaving the free end of the spring, which rests on plate, C, free, in such a way that the air may escape between B and C, but no powder can penetrate into the interior of covering, *d*. In order to eject the powder in sudden blasts or thrusts, the bent spring is bulged or curved also in cross section. When the bent or covered spring, B, is depressed until its middle rests upon the plate, C, the outward bulging spring is caused to bulge or buckle inward before it reaches this position. During this change of bulge of the spring, a rapid change of pressure, and a consequent sudden and swift ejection of the powder is caused. Upon relieving the pressure, the spring returns to its normal position.

While I consider the form shown and described the preferred embodiment of my invention, the same may be modified in many particulars, without departing from the spirit of my invention. Thus, for example, the transverse bulge of the spring may be dispensed with, as also the covering, *d*, enveloping the plate and spring. The effect of the bellows, however, would then be less perfect. What I claim, and desire to secure by Letters Patent, is—

1. A bellows for insect and other powders, consisting in a bag in combination with a plate and a bent spring secured to the plate and free at the end toward the point of the bag, the plate and spring being within the bag, substantially as set forth.

2. In a bellows for insect and other powders, the combination, with a plate, of a bent spring secured to the plate at one end and having its other end free and resting on the plate, substantially as set forth.

3. A bellows for insect and other powders, consisting in a tapering bag provided with an orifice at its point in combination with a plate, a bent spring secured at one end to the plate and free at the end toward the orifice, and a covering enveloping the spring and plate, substantially as set forth.

4. A bellows for insect and other powders, consisting in a tapered bag in combination

with a plate and a bent spring having a transverse bulge secured at one end to the plate and free at the end toward the point of the bag, substantially as set forth.

- 5 5. A bellows for insect and other powders, comprising the following parts: a tapering bag having a small tube arranged at its point, a plate, and a bent spring arranged within the bag, the spring having a transverse bulge and
10 being secured at one end to the plate, while its other end toward the point of the bag is free, and a covering enveloping the plate and spring, substantially as set forth.

6. In a bellows for insect and other powders, a plate and a bent spring having a transverse bulge, secured at one end to the plate, and having its other end free and resting on the plate, substantially as set forth.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

THEODOR NÄGELE.

Witnesses:

AUGUST B. DRAUTZ,
ARTHUR HOFMANN.