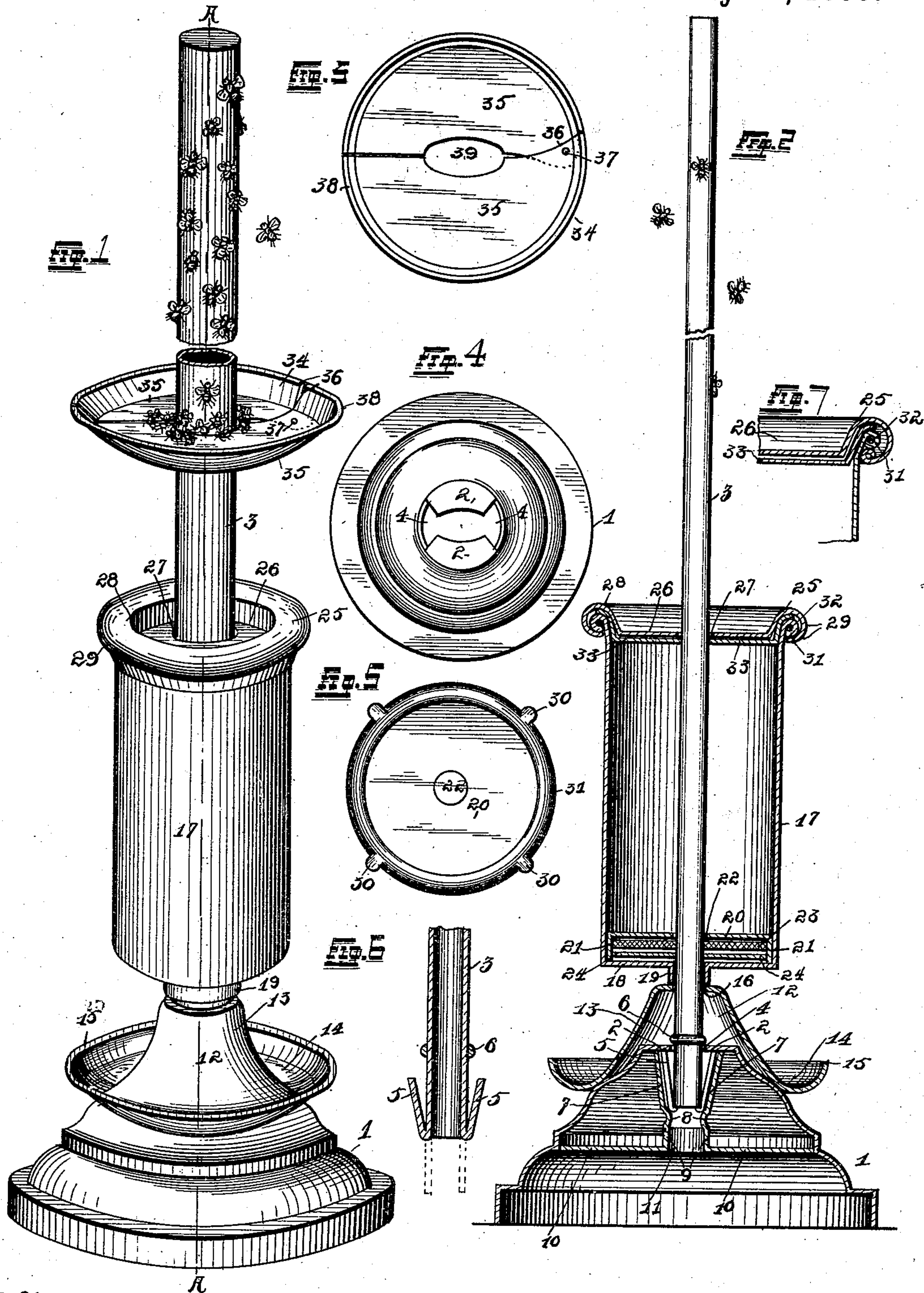


(No Model.)

J. MOSKOWITZ.
FLY TRAP.

No. 501,686.

Patented July 18, 1893.



Witnesses

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UNITED STATES PATENT OFFICE.

JACOB MOSKOWITZ, OF ST. LOUIS, MISSOURI.

FLY-TRAP.

SPECIFICATION forming part of Letters Patent No. 501,686, dated July 18, 1893.

Application filed January 5, 1893. Serial No. 457,314. (No model.)

To all whom it may concern:

Be it known that I, JACOB MOSKOWITZ, of the city of St. Louis and State of Missouri, have invented certain new and useful Improvements in Fly-Traps, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part hereof.

My invention relates to improvements in "fly traps" and consists in the novel arrangement and combination of parts, as will be more fully hereinafter described and designated in the claims.

The object of my invention is to improve upon a fly trap of that class in which the flies are attracted to and retained by an adhesive surface. I am well aware that there are many patents upon this class of fly-traps, but it is believed that the improvements and advantages both in the construction and operation of the device, are material improvements over any previous article.

In the drawings: Figure 1 is a perspective view of my complete invention, showing one of the parts in the act of removing the flies from the adhesive surface. Fig. 2 is a vertical sectional view taken on a line A—A in Fig. 1. Fig. 3 is a detail top plan elevation of a reciprocating hinged scraper. Fig. 4 is a top plan view of the base of the trap with other parts removed. Fig. 5 is a top plan view of the adhesive substance reservoir with the cap removed. Fig. 6 is a detail sectional view with parts broken away of the vertical stem, showing the means provided for its securance in the base. Fig. 7 is a modified means of holding the reservoir cap to the same.

Referring to the drawings: 1 indicates a base, cast, pressed, or stamped from any suitable metal or turned from wood and adapted to support the remaining portion of the construction. In this instance the base is of substantially a conical form, and in its upper extremity is provided with the inwardly projecting plates 2, the inner edges of which are curvilinear in form to fit against a vertical stem or tube 3, elliptical shaped in cross-section. The top of said base 1 is circular and the two projecting plates 2 only form a support for the sides of the stem 3 as cut out portions 4 are provided at both ends of each of said plates 2, and as shown in Fig. 4 the

plates are only secured or formed integrally with the base upon their outer curvilinear edges or outlines, the cut out portion 4 giving to the plates 2 a spring function, which is necessary for the support of the stem 3. As before stated the said stem 3 is elliptical in cross-section and hollow, and upon its lower end is provided with two outwardly and downwardly extending plates or lugs 5, which are located only upon the sides of said elliptical stem.

The lugs 5 as well as the stems 3 are made of metal and preferably formed integrally with each other, and are therefore adapted to spring, the normal tendency of same being outwardly from the sides of said stem.

Above the spring lugs 5 and located upon the stem 3 is a peripheral projecting flange 6, which is adapted to limit the outward movement of the stem 3 into the opening between the plates 2.

Located under the plates 2 and projecting downwardly and convergingly from same are walls 7, which at a distance below said plates 2 coincident with the distance from the flange 6 to the lower end of the stem 3, are projections 8 which serve to limit the downward movement of the stem, the walls 7 projecting downwardly from the flanges 8 in portions 9 secured to a horizontal plate 10, which is located in the base 1 as shown particularly in Fig. 2, the opening 11 in said plate 10 being elliptical in form and coincident with the shape of the stem 3.

The stem 3 is inserted downwardly between the spring plates 2 with the spring lugs 5 engaging the same, said stem and lugs 5 being passed through the opening between said spring plates 2 far enough to allow the spreading out of said lugs 5, the upper ends of same engaging the under sides of said plates 2, the lower end of the stem engaging the flanges 8, and the flange 6 engaging the upper side of the spring plates 2.

Before proceeding further I desire to give the reason for making the stem 3 elliptical in form and hollow. The form of the stem necessarily gives a greater amount of surface upon which the adhesive substance is adapted to adhere therefore giving a greater attraction to the flies or other winged insects and permitting the same being caught by the trap.

It is well known that a hollow tube will attract and hold more fluid than a solid rod, which if used in this instance would allow the running down of the adhesive substance applied thereto.

I do not wish to necessarily confine myself to the elliptical form of stem herein shown, as the same could be made rectangular or oblong in cross section or of different curvilinear form without in any way changing this material idea of improvement.

A drip cup 12 is adapted to fit upon the stem 3 and engage the upper conical portion of the base 1, and consists of a centrally upwardly projecting annular portion 13, an annular trough or groove 14 below said portion 13 at the base of same and an upwardly projecting annular rim 15. The drip cup 12 is provided in its upper extremity with an elliptical shaped opening 16 adapted to fit over the stem 3, said drip cup 12 being provided to catch any adhesive substance which may leak out from the reservoir.

The reservoir 17 is circular in cross section and comprises a cylindrical shell open at the top and closed at the lower end by a bottom 18 having a centrally downwardly projecting peripheral flange 19, corresponding in form to the stem 3 and through which said stem is adapted to pass, said flange 19 adapted to engage the upper extremity of the drip cup 12 as shown particularly in Fig. 2.

The reservoir 17 is provided with a double bottom, the second inner bottom 20 being provided with an annular downwardly depending flange 21, which is adapted to elevate the same above the bottom 18. Said bottom 20 is provided with an elliptical shaped opening 22 through which the stem is adapted to pass, and held in the space between said bottoms 18 and 20 and adjacent said bottom 20 is an annular piece 23 of felt or other yielding material, which is provided with a central opening through which the stem 3 is adapted to pass, said yielding material acting as packing to prevent the leakage of the adhesive substance from the reservoir, when in operation.

It is intended that the fly trap be manufactured and sold with the reservoir 17 filled with adhesive material, and after a party once has a trap it is designed to construct the reservoir in such a manner that the same can be sold separate from the trap and to do this it is necessary that the reservoir be closed at both ends. To carry out this idea I have provided a plate 24 of wax paper or some equally liquid proof material, which is located between the felt piece 23 and the bottom 18 and which is imperforate except when punctured by the passage of the reservoir 17 downwardly over the stem 3 when the trap is being put together. The upper end of said reservoir 17 is closed by a removable cap plate 25, which consists of an annular portion 26 surrounding the opening 27, through which the stem 3 is adapted to pass and is provided with an outwardly extending circumferen-

tial portion 28 which terminates in a downwardly and inwardly projecting peripheral portion 29.

The upper annular edge of the reservoir 17 is rounded downwardly and inwardly as shown in Fig. 2, four projecting lugs 30 being left to carry out the idea which I have conceived of fastening the cap 25. The remaining portion 31 of the periphery of the reservoir 17 is rounded over a wire 32, said lugs 30 being left in order that the same will be engaged by a downwardly and inwardly projecting peripheral portion 29 upon the cap 25, the pressing downwardly in said cap 25 over the upper edge of the reservoir 17 adapted by means of the engagement of said peripheral portion 29 over the lugs 30 to secure said cap 25 to said reservoir, an annular sheet 33 of the wax paper being provided to carry out the function as above stated, said wax paper 33 being manufactured to conform with the shape of the cap 25, the upper and outer edges of same normally engaging over the peripheral rounded portions 31. Said wax paper 33 is also imperforate until the trap is put together, when the same is punctured in the manner similar to that of the wax paper 24 in the lower end of the reservoir 17.

The operation of the reservoir 17 is extremely simple, the same being filled with some adhesive substance which in itself forms an attraction for flies or other winged insects, and also includes the necessary ingredients to retain the flies when they light upon same.

The reservoir 17 is placed upon the stem 3, and after being passed down the entire length of said stem 3, the flange 19 is adapted to engage the drip cup 12, and the entire stem from the cap 25 to the upper extremity of the same is covered with an even coating of the adhesive substance.

For the removal of the dried adhesive material and the flies engaging the same I have provided a removable scraper 24, which is adapted to be reciprocated upon said stem 3 above said reservoir 17, but which normally rests upon the cap 25. The scraper 34 consists of two semicircular sections 35, both of which having a projecting ear 36, one of said ears lapping over the other and both pivoted together by a pivot 37. The complete scraper 34 comprises an annular horizontal trough surrounding the stem 3, and a circumferential upwardly and outwardly flaring side 38, which makes the same in the form of a pan as shown in Fig. 1. Both sections 35 provide half of an eclipse in their adjoining edges, the complete eclipse forming an opening 39 which is adapted to fit over the stem 3.

Careful examination of former patents shows that the scraper is made of one piece of metal, and having a radially extending groove which alone prevents the removal of all the flies from the stem 3 with one vertical movement, but with the use of my invention it will be seen that all flies or insects retained

by the adhesive material upon the stem 3 are removed by one vertical movement of said scraper 34, and while the scraper thoroughly removes all of said insects it does not remove
 5 all of said adhesive material, but leaves the same for re-engagement by other flies. The scraper when pushed upwardly over the stem 3 is taken off and the flies removed from said scraper by rubbing the same with a dry cloth
 10 or paper, and the scraper 34 is replaced upon the stem 3 adjacent the cap 25 by simply opening out the two sections 35, passing them over the stem 3 and again closing them.

It will be seen from the foregoing description and a careful examination of the drawings that my invention in all points is an improvement over any previous construction, for I have eliminated the necessity of screw joints, and provided in lieu thereof certain
 15 constructions which are even an improvement over the former fly-trap.

Having fully described my invention, what I claim is—

1. As an improvement in fly traps, the combination, with a base, and a stem projecting upwardly therefrom, of a reciprocatory reservoir mounted on said stem and provided with an inner bottom elevated above the bottom proper, and a disk of flexible material
 25 disposed between the same and surrounding the stem; substantially as set forth.

2. As an improvement in fly-traps, the combination, with a base, a stem projecting upward therefrom, and a reciprocatory reservoir
 35 mounted on the stem, of a removable scraper for cleansing said stem and consisting of two sections hinged together at one side, said sections being provided with coincident recesses adapted to form conjunctively a central opening corresponding to and receiving the stem;
 40 substantially as set forth.

3. An improved fly trap having a hollow substantially conical shaped base, the upper end of said base truncated, two inwardly projecting spring plates, the inner edges of which
 45 outline an elliptical opening, two downwardly projecting and converging walls from said plates, horizontal flanges in said walls above a point at which they merge into a plate forming a part of the base, a vertical stem elliptical shaped in cross section and hollow, said
 50 stem provided with two upwardly projecting spring lugs, a peripheral flange upon said stem and which when inserted in the opening

between said spring plates is adapted to engage flanges upon the converging walls, the upper ends of said spring lugs adapted to engage under said spring plates, and a peripheral flange adapted to engage over said spring
 55 plates, substantially as set forth.

4. An improved fly trap having a hollow base surmounted by an upwardly projecting hollow stem, said stem being elliptical in cross section, a reservoir for the storage of adhesive material adapted to be reciprocated upon said
 60 stem, said reservoir comprising a cylindrical shell having a double bottom, the outer bottom having a downwardly projecting flange coincident in form with and adapted to fit over said stem, the upper of said bottoms provided with an opening through which said
 65 stem is adapted to pass, a felt packing located between said bottoms, a wax paper set between said felt packing and the lower of said bottoms, said wax paper imperforate except
 70 when punctured by the passage of the stem through the same, the top of said reservoir provided with an annular rounded portion, four lugs projecting therefrom, a cap for said reservoir having a circumferential downwardly and inwardly projecting rounded portion adapted to engage over said projecting
 75 lugs, an imperforate sheet of wax paper normally held between said cap and the upper end of said reservoir and said wax paper adapted to be punctured by the passage of
 80 said reservoir downward and over same, substantially as set forth.

5. As an improvement in fly-traps, the combination, with a stem, and a reciprocatory reservoir mounted thereon, of a supporting base for said stem comprising a conical support provided with two inwardly-projecting plates adapted to engage and support the stem, a horizontal plate located within said base, and
 85 a tube disposed between the inwardly-projecting and the horizontal plates, said tube being adapted to receive the stem and provided near its lower end with an inwardly-projecting annular flange for limiting the
 90 downward movement of the stem; substantially as and for the purpose set forth.

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

JACOB MOSKOWITZ.

Witnesses:

HERBERT S. ROBINSON,
 ALFRED A. EICKS.