

(No Model.)

J. A. CAMPBELL.  
OIL CAN.

2 Sheets—Sheet 1.

No. 411,977.

Patented Oct. 1, 1889.

Fig. 1.

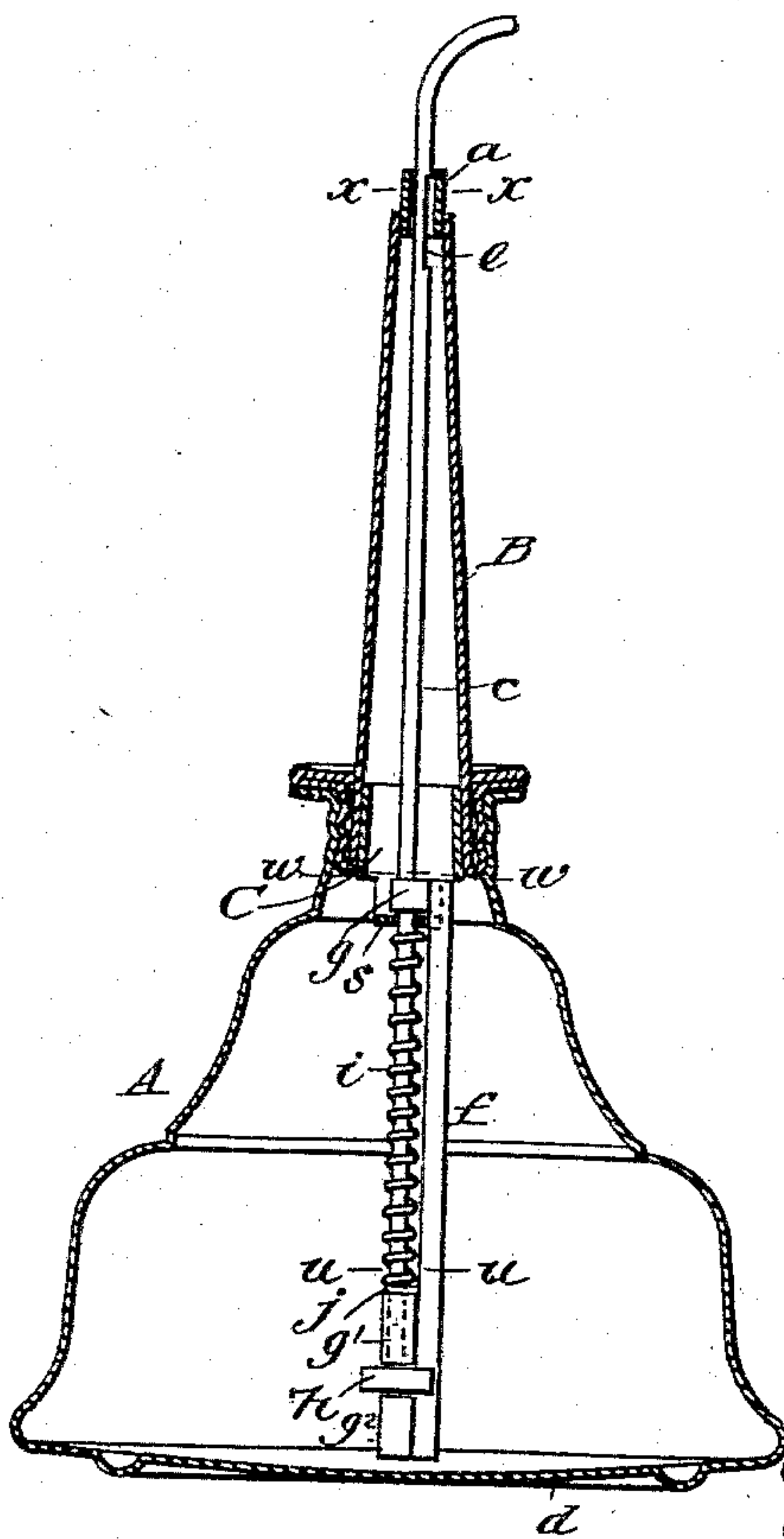
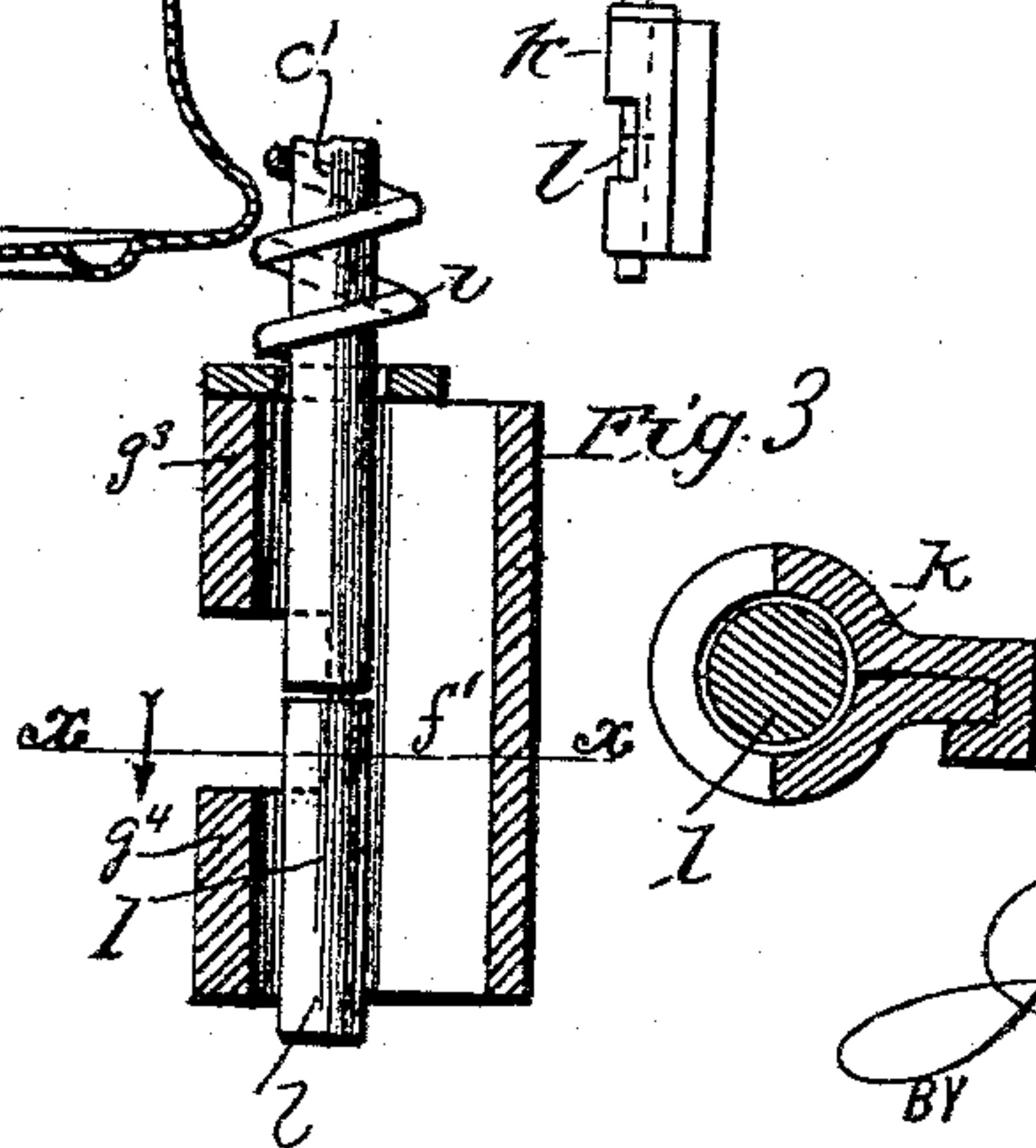
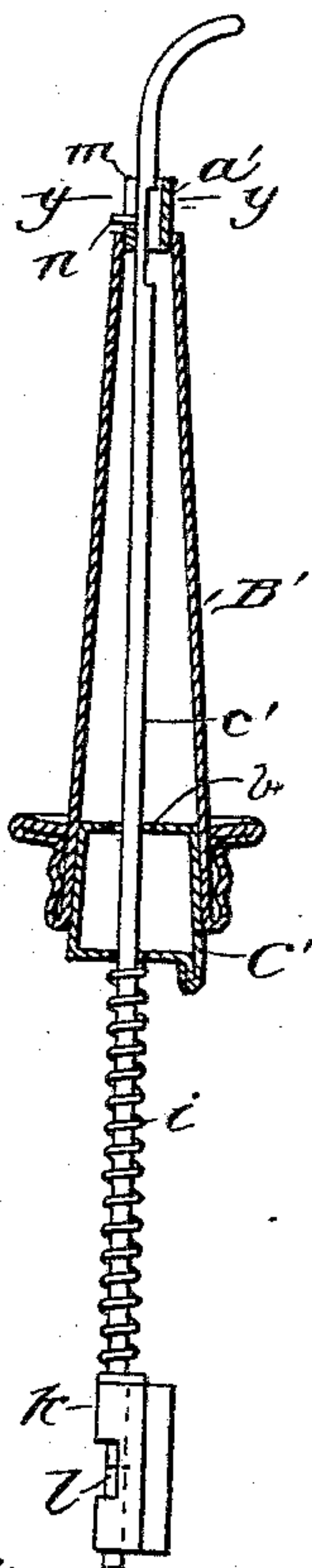


Fig. 2.



WITNESSES:

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C. Sedgwick

INVENTOR:

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BY Munn & Co

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(No Model.)

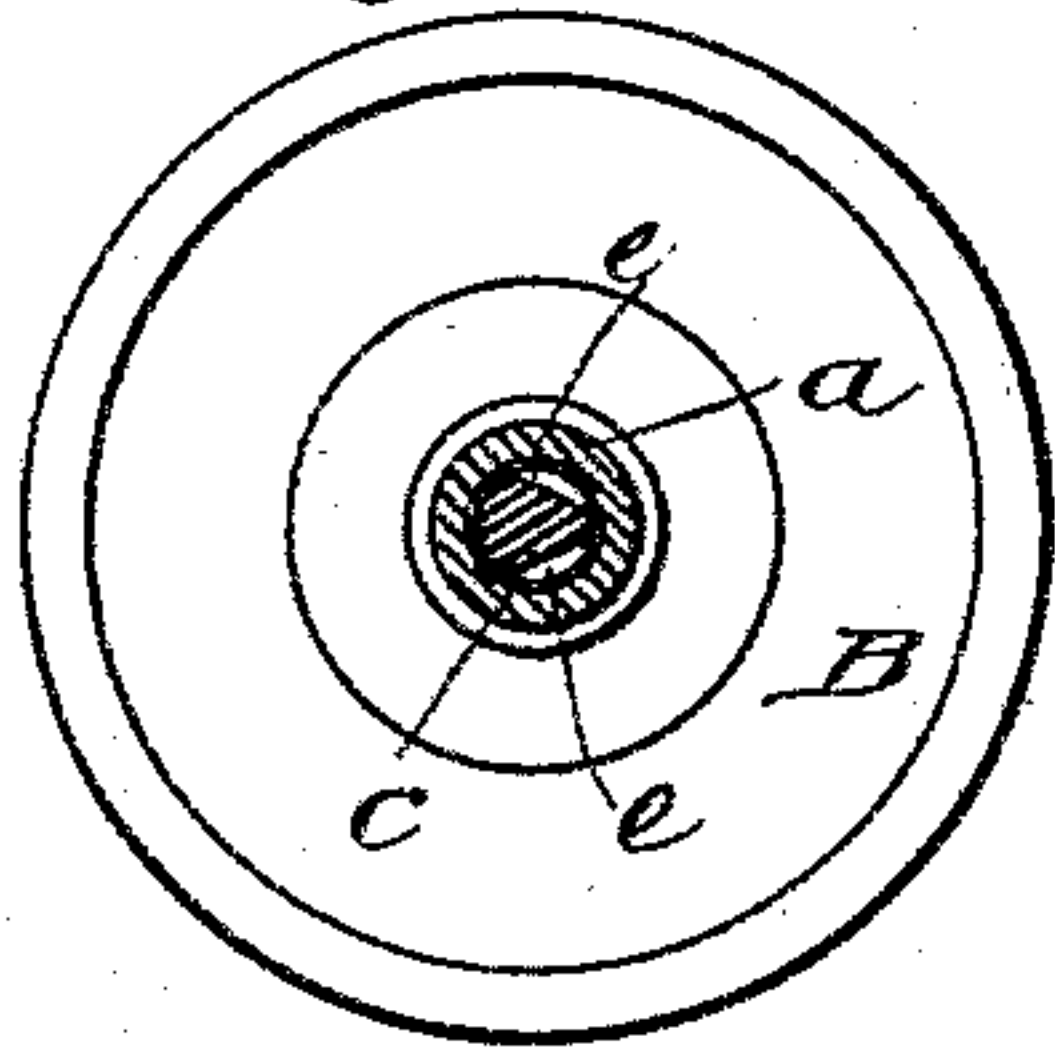
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J. A. CAMPBELL.  
OIL CAN.

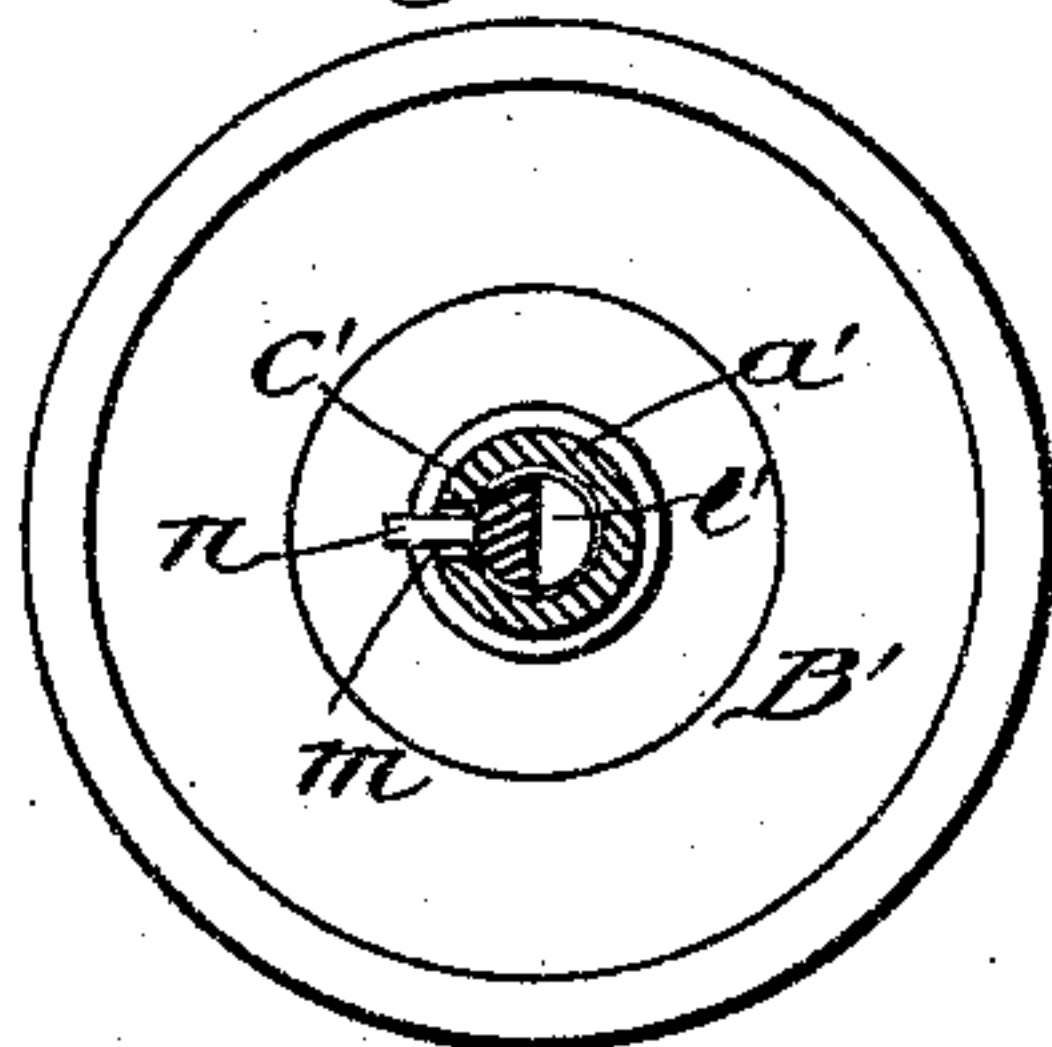
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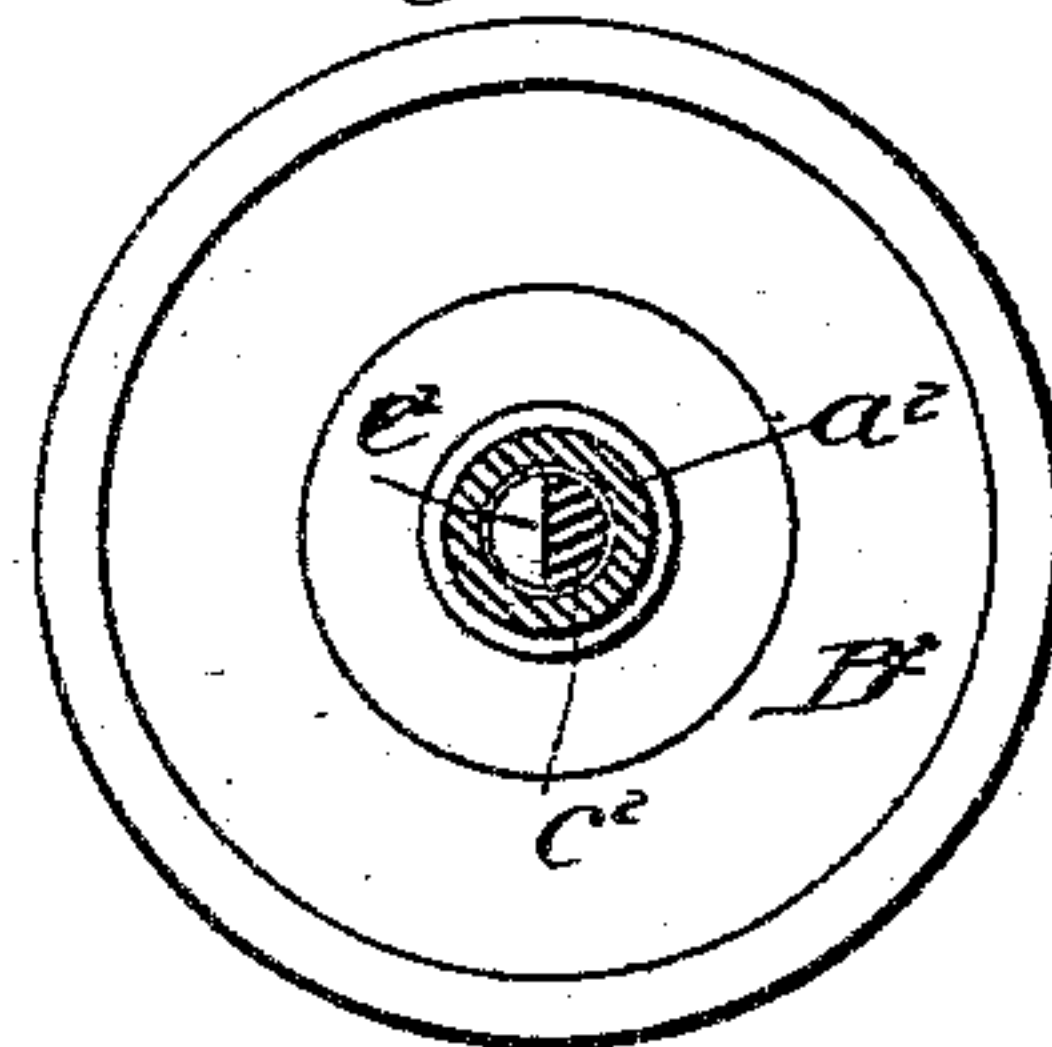
*Fig. 4.*



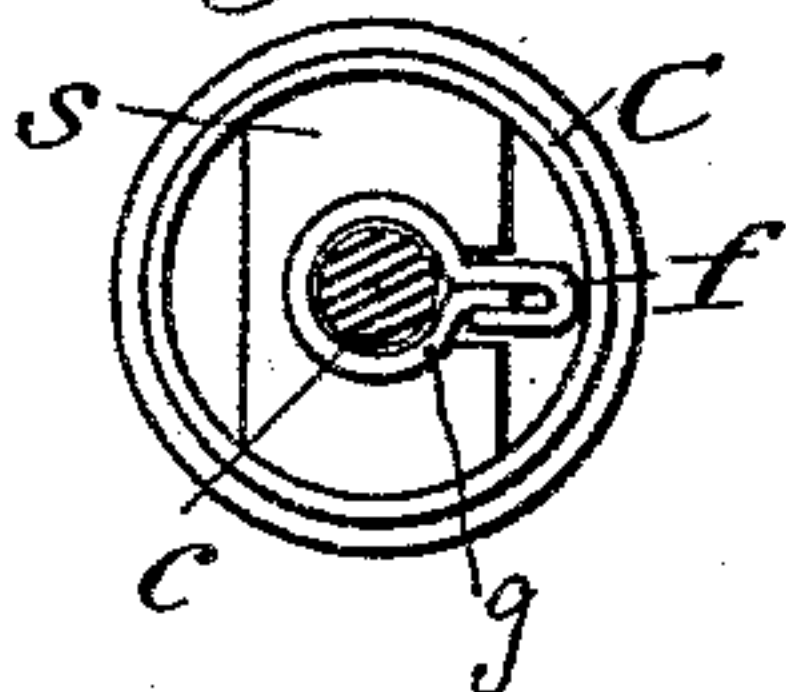
*Fig. 5.*



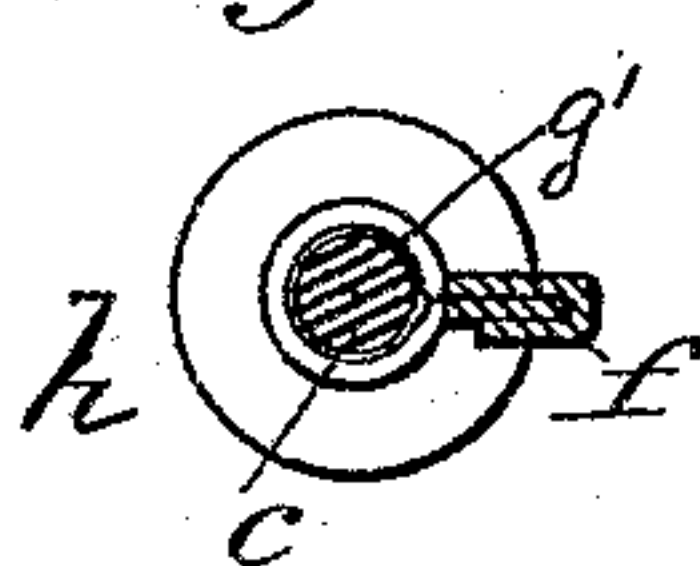
*Fig. 6.*



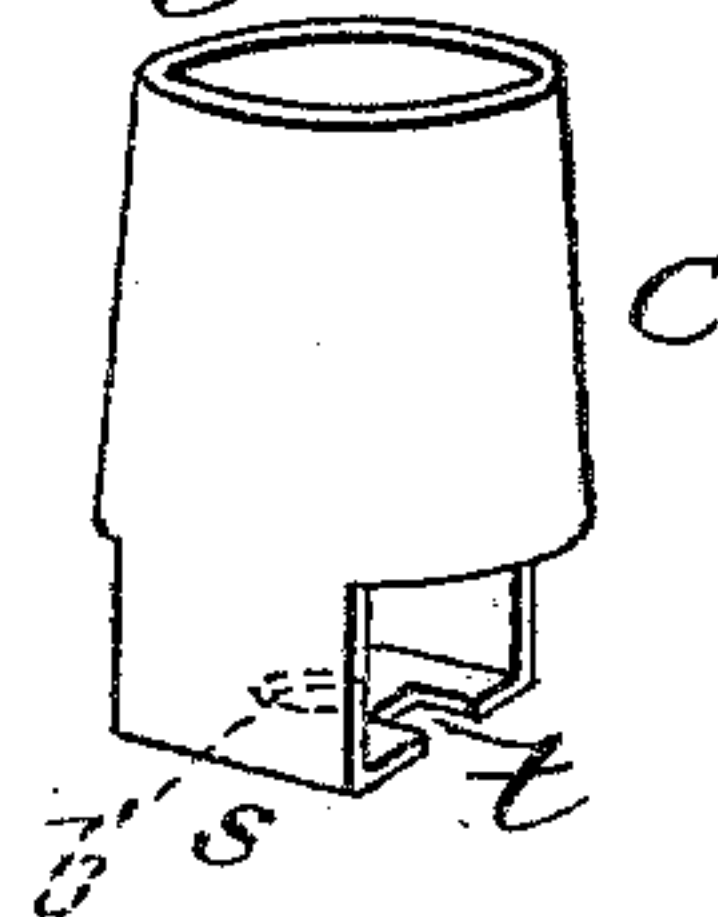
*Fig. 7.*



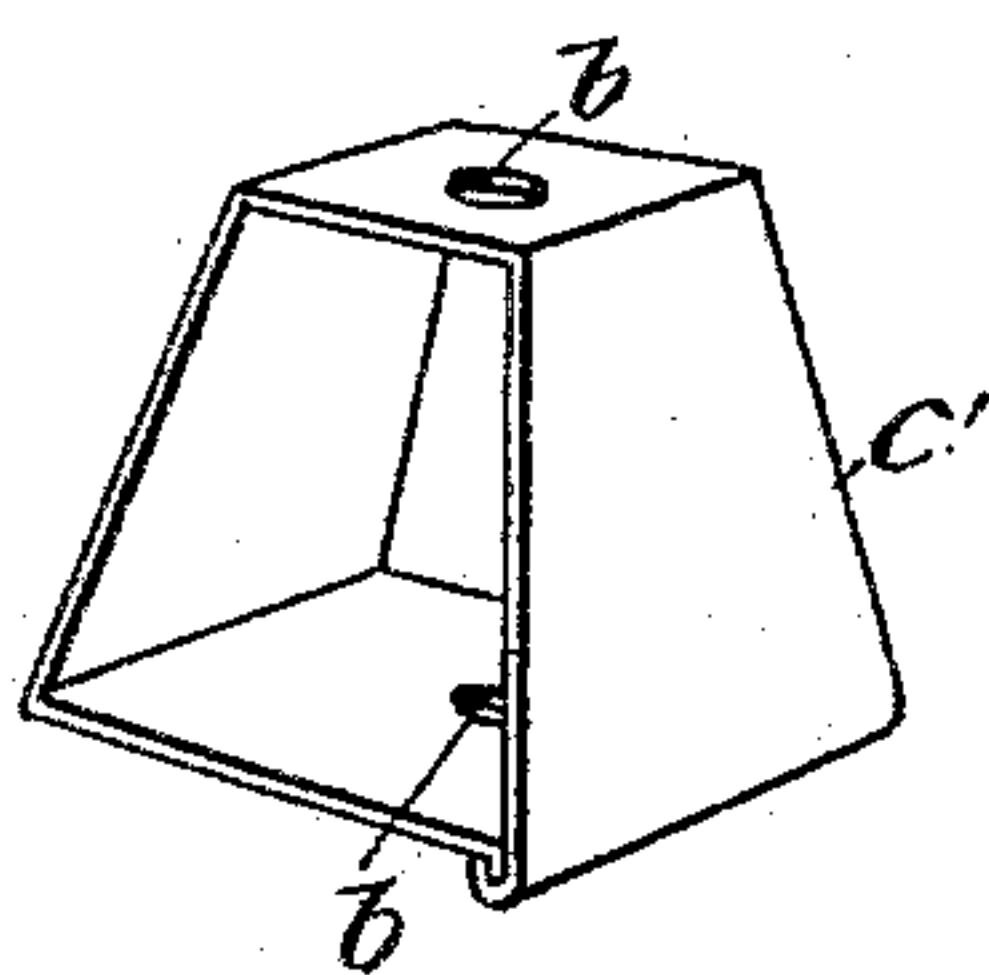
*Fig. 8.*



*Fig. 9.*



*Fig. 10.*



*Fig. 11.*



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INVENTOR:

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# UNITED STATES PATENT OFFICE.

JAMES A. CAMPBELL, OF NEW ORLEANS, LOUISIANA.

## OIL-CAN.

SPECIFICATION forming part of Letters Patent No. 411,977, dated October 1, 1889.

Application filed September 5, 1888. Serial No. 284,598. (No model.)

*To all whom it may concern:*

Be it known that I, JAMES A. CAMPBELL, of New Orleans, in the parish of Orleans and State of Louisiana, have invented a new and Improved Oil-Can, of which the following is a specification, reference being had to the annexed drawings, forming a part thereof, in which—

Figure 1 is a vertical transverse section of an oil-can to which my improvement has been applied. Fig. 2 is a longitudinal section of an oil-can nozzle to which a modified form of my improvement has been applied. Fig. 3 is a detail view, on an enlarged scale, of the lower end of the rod or wire, the sleeve *k*, and the pin *l* shown in Fig. 2. Fig. 4 is a horizontal section taken on line *x x* in Fig. 1. Fig. 5 is a horizontal section taken on line *y y* in Fig. 2. Fig. 6 is a horizontal section taken on line *v v* in Fig. 3. Fig. 7 is a horizontal section taken on line *w w* in Fig. 1. Fig. 8 is a horizontal section taken on line *u u* in Fig. 1. Fig. 9 is a perspective view of the guide used in Fig. 1. Fig. 10 is a perspective view of the guide employed in Fig. 2, and Fig. 11 is a perspective view of the nut used in Fig. 1.

Similar letters of reference indicate corresponding parts in all the views.

The object of my invention is to provide a new and improved oil-can which shall be simple in construction and inexpensive in manufacture, in which the nozzle remains closed, except when the bottom of the can is pressed, thereby preventing useless waste of oil between the holes, although the can during oiling may be held bottom up to prevent the oil-outlet from becoming stopped up by not bringing it in contact with dirty, gummy oil-holes, to enable the operator to see how much oil is given to each hole, and to enable him to easily control the quantity, which may be from one drop up to a continuous stream, by the pressure of the thumb upon the bottom of the can.

My invention consists in the construction and arrangement of parts, hereinafter described, and specifically pointed out in the claims.

The can *A* is provided with the usual tapering nozzle *B*, in the end of which is fitted a cylindrical sleeve *a*. In the lower part of the nozzle is inserted a guide *C*, Fig. 9, which

consists of a strip of sheet metal punched into suitable shape and bent to form a short conical tube, which fits accurately the inside of the larger end of the nozzle. On the lower end of the guide *C* there is a guide-strip *s*, which is provided with a hole *b'*, forming a guide for the wire *c*. It is also provided with the notch *t*, in which the adjusting-piece *f* is inserted to prevent the nut *h* from turning while the wire *c* is being screwed into the nut, also to prevent the wire *c* from turning while the can is in use for oiling. The adjusting-piece *f* is continually kept in contact with the bottom *d* of the can by the pressure of the spiral spring *i*, and the wire *c* extends from near the said bottom through the sleeve *a*, inserted in the nozzle of the can. In the side of the wire *c* are formed two notches *e*, which are about three-sixteenths of an inch longer than the sleeve *a*. Upon the inner end of the wire *c* is placed the adjusting-piece *f*, which is made of an apertured sheet of metal folded together, forming eyes *g g' g''*, in which the wire *c* is inserted. The lower end of the wire *c* is threaded and provided with a nut *h*, which has a groove in its edge. This nut is received between the eyes *g' g''*, and is prevented from turning by the engagement of the groove with the side of the adjusting-piece *f*, and between the eye *g'* and the bottom of the guide *C* is placed the spiral spring *i*, which surrounds the wire *c*. A washer *j* is placed between the lower end of the spring and the eye *g'*. By turning the wire *c* by taking hold of the curved end the said wire *c* is adjusted longitudinally in the adjusting-piece *f*, and projected more or less through the sleeve *a* by the engagement of its threaded portion with the nut *h*. In its normal position the notch *e* is drawn into the nozzle below the top of the sleeve *a*, and is adjusted with reference to the top of the sleeve, so that when the can-bottom *d* is pressed it will force the wire *c* upward, carrying the upper part of the notch *e* above the sleeve *a*, thus providing an escape for the oil.

In the modification shown in Figs. 2 and 3 I have provided an adjusting-piece *f'*, having eyes *g<sup>3</sup> g<sup>4</sup>*, which are placed on the lower end of the wire *c'*, a wooden pin *l* being placed in the eye *g<sup>4</sup>* in position to touch the lower end of the wire *c'*. The adjustment of the



wire  $c'$  is effected by placing the wire in the nozzle  $B'$  and slipping the eye  $g^3$  upon the end of the wire, where it is held by friction, the wooden pin  $l$  being left out. The nozzle  
 5  $B'$  is then placed in the can and the wire  $c'$  is pushed down in the nozzle until the piece  $f'$  strikes the bottom of the can, and the wire  $c'$  is pushed down into the piece  $f'$  until the stud  $n$  reaches the lower end of the slot  $m$  in  
 10 the sleeve  $a'$ , when the motion of the wire  $c'$  is arrested. The nozzle then being taken from the can, the wooden pin  $l$  is carefully inserted in the eye  $g^4$  of the piece  $f'$  until it just touches the bottom end of the wire  $c'$  without moving  
 15 the said piece  $f'$  upon the wire  $c'$ . The adjoining ends of the wire  $c'$  and pin  $l$  can be seen between the eyes  $g^3$   $g^4$ . The wooden pin  $l$  is then to be cut off even with the bottom of the eye  $g^4$ , when the combined length of the  
 20 wire  $c'$  and the pin  $l$  will be sufficient to cause the pin  $l$  and piece  $f'$  to be engaged when the can bottom is pushed in in the operation of discharging oil from the can. The slot  $m$  in the sleeve  $a'$  serves as a guide for the stud  $n$ ,  
 25 projecting from the side of the wire  $c'$ . This arrangement prevents the turning of the said wire when oiling, and is required only when the wire is curved, as shown in the drawings.

The guide  $C'$  (shown in Fig. 10) is a modification of that in Fig. 1. It consists of a strip of  
 30 sheet metal punched into suitable shape and bent into trapezoidal form, as represented by the drawings.

The four corners fit into the lower end of the cone-shaped nozzle. This strip, after being bent into form, is locked at one corner. It is provided with holes  $b$  through the bot-  
 35 tom and top for receiving the wire  $c'$ , the upper hole being of sufficient diameter to not touch the wire  $c'$ , the lower hole forming a guide for the said wire.  
 40

In all the cases I have described the end of the wire which projects beyond the end of the nozzle forms a guide for the oil escaping  
 45 from the can, and affords a means of noting the amount of oil discharged.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

50 1. The combination, with an oil-can nozzle having a bearing in its lower end, of a wire passing through said bearing and nozzle and

having a reduced diameter at the delivery end of the nozzle, an adjusting-piece through which the lower end of the wire passes, and a spiral spring on the wire between said bearing and adjusting-piece, substantially as set forth. 55

2. An oil-can nozzle having a sleeve  $a$  in its outer end, a trapezoidal guide-piece in its inner end, a wire extending through the guide-piece and sleeve and having a reduced diameter of greater length than the latter, and a spiral spring on the wire pressing at its upper end against the lower end of the guide and at its lower end against a bearing on the wire, substantially as set forth. 60 65

3. The combination, with the nozzle  $B$  and wire  $c$ , of the guide  $C'$ , formed of a strip of metal bent into trapezoidal shape and provided with apertures  $b$  for receiving the said wire  $c$ , substantially as specified. 70

4. In an oil-can, the combination, with the oil-can nozzle having a longitudinal slot at the delivery end thereof, of the sliding wire having a projecting pin near its outer end entering said slot, provided with a notch in its side, the notch being normally within the end of the nozzle, substantially as set forth. 75

5. In an oil-can, the combination, with the nozzle having guides, of a sliding wire passing through the guides and projecting beyond the delivery end of the nozzle, a spring pressing the rod inwardly, a sleeve on the inner end of the rod, and a pin extending upwardly into the lower end of the sleeve and engaging the inner extremity of the wire, substantially as set forth. 80 85

6. In an oil-can, the combination, with the nozzle having a sliding wire extending through it, the wire having a contracted diameter adjacent to the delivery end of the nozzle, and a spring normally pressing the wire inwardly to hold said contracted part within the nozzle, of an adjusting-piece on the inner end of the wire, having a sight-opening on one side, and a pin extending upward through the lower end of the adjusting-piece against the extremity of the wire, substantially as set forth. 90 95

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Witnesses:

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H. MISCHÉ.