

W. N. MOORE.
 APPARATUS FOR APPLYING ADHESIVES.
 APPLICATION FILED JULY 24, 1908.

911,253.

Patented Feb. 2, 1909.

Fig. 1.

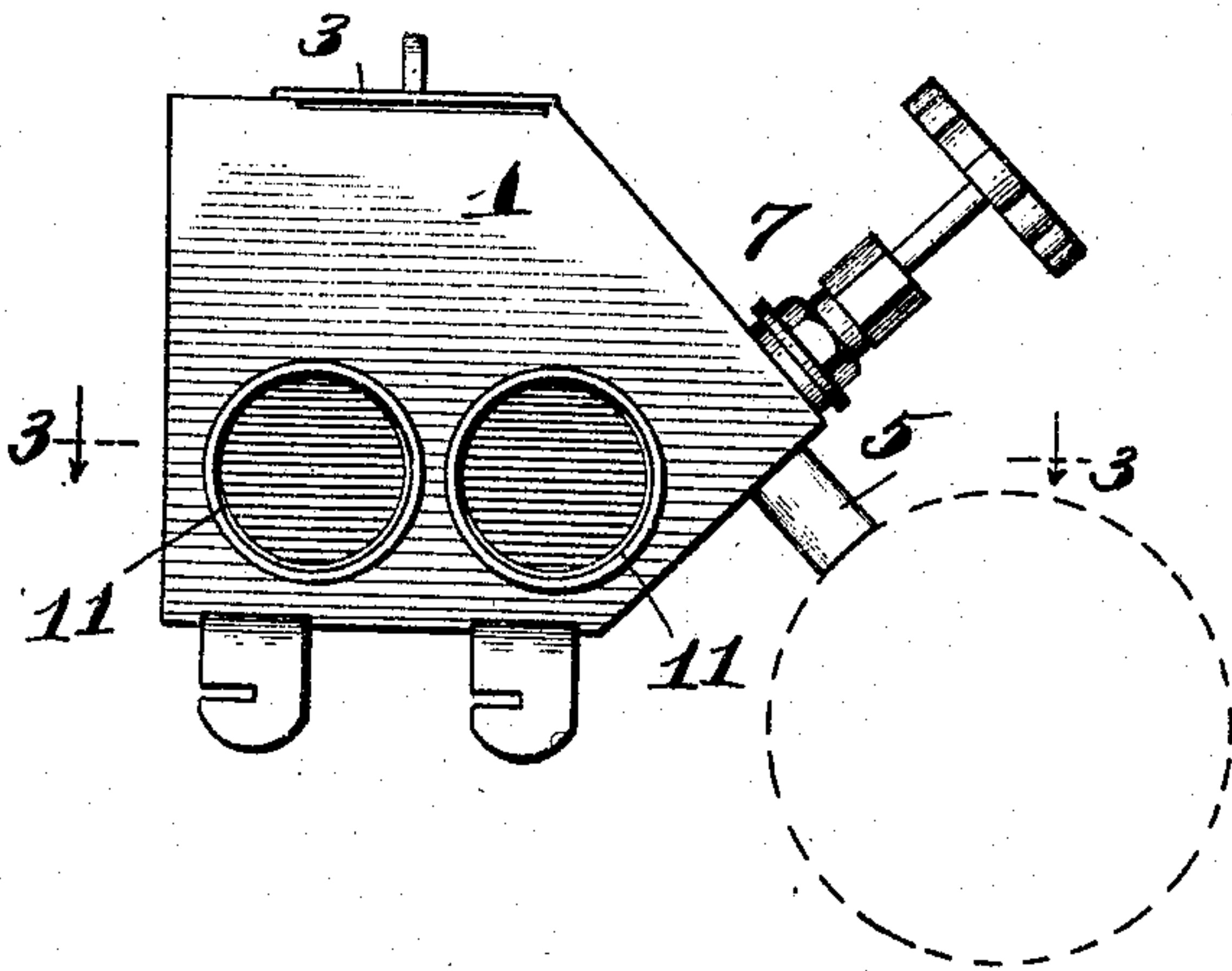


Fig. 2.

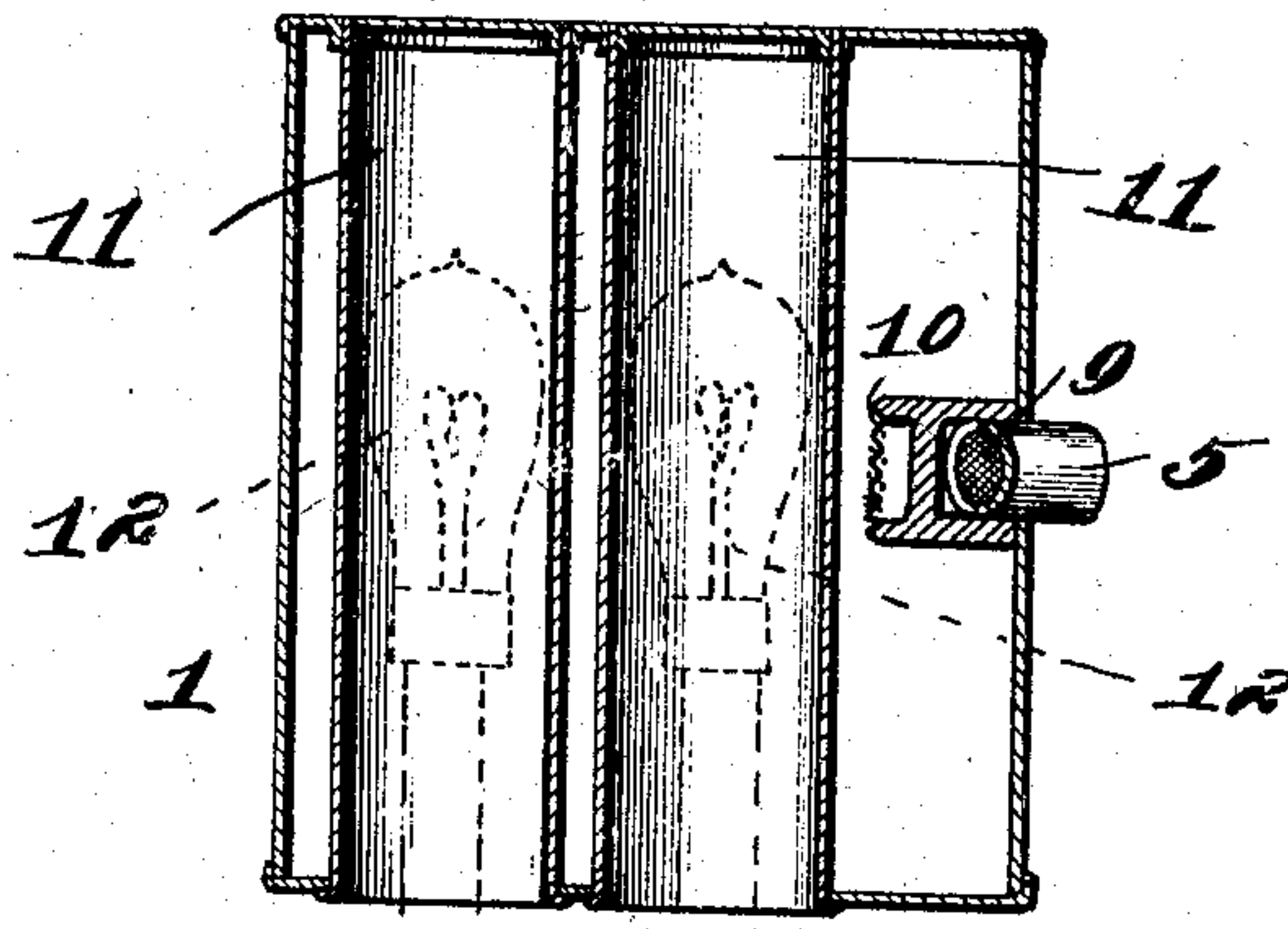
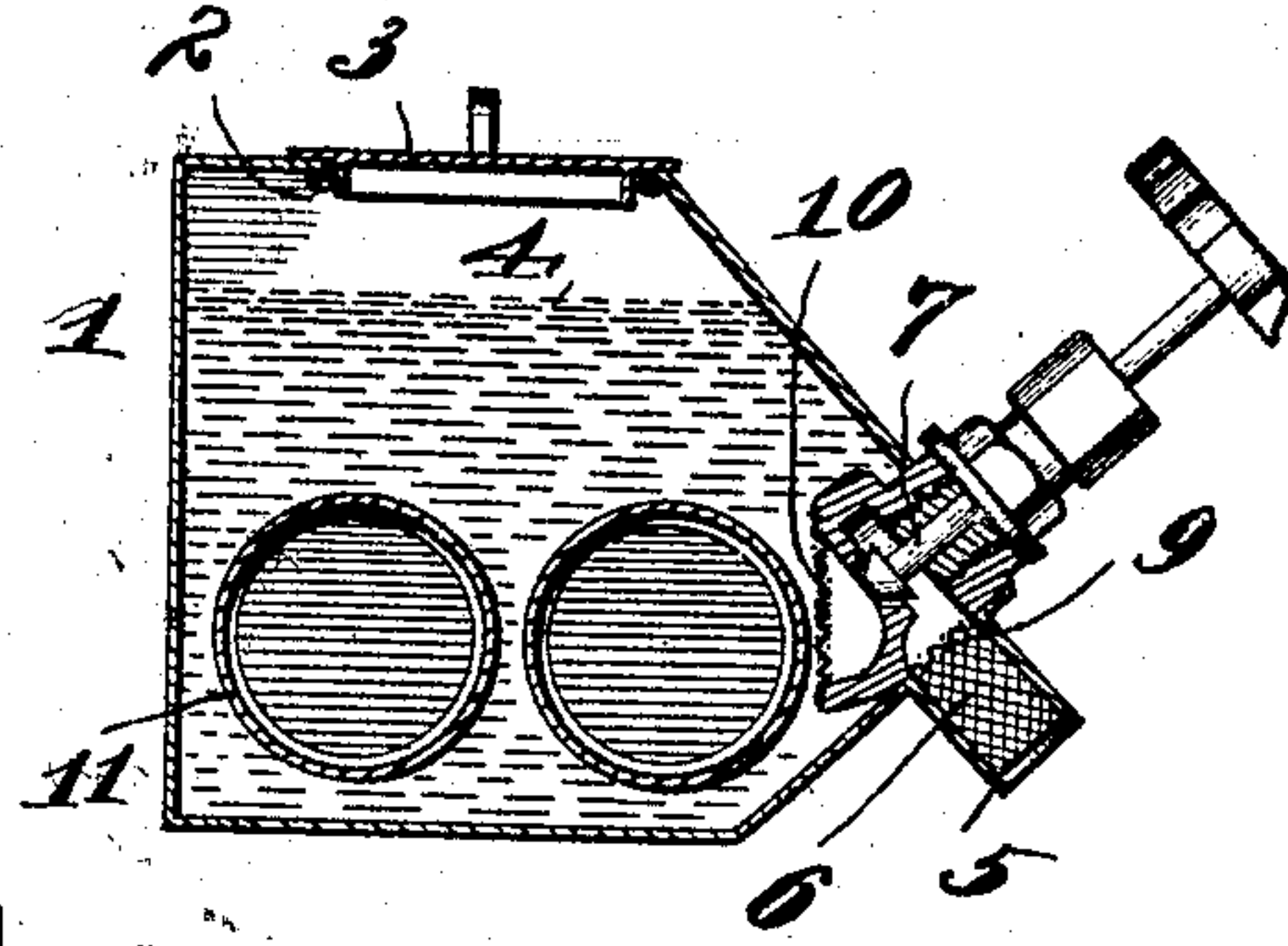


Fig. 3.

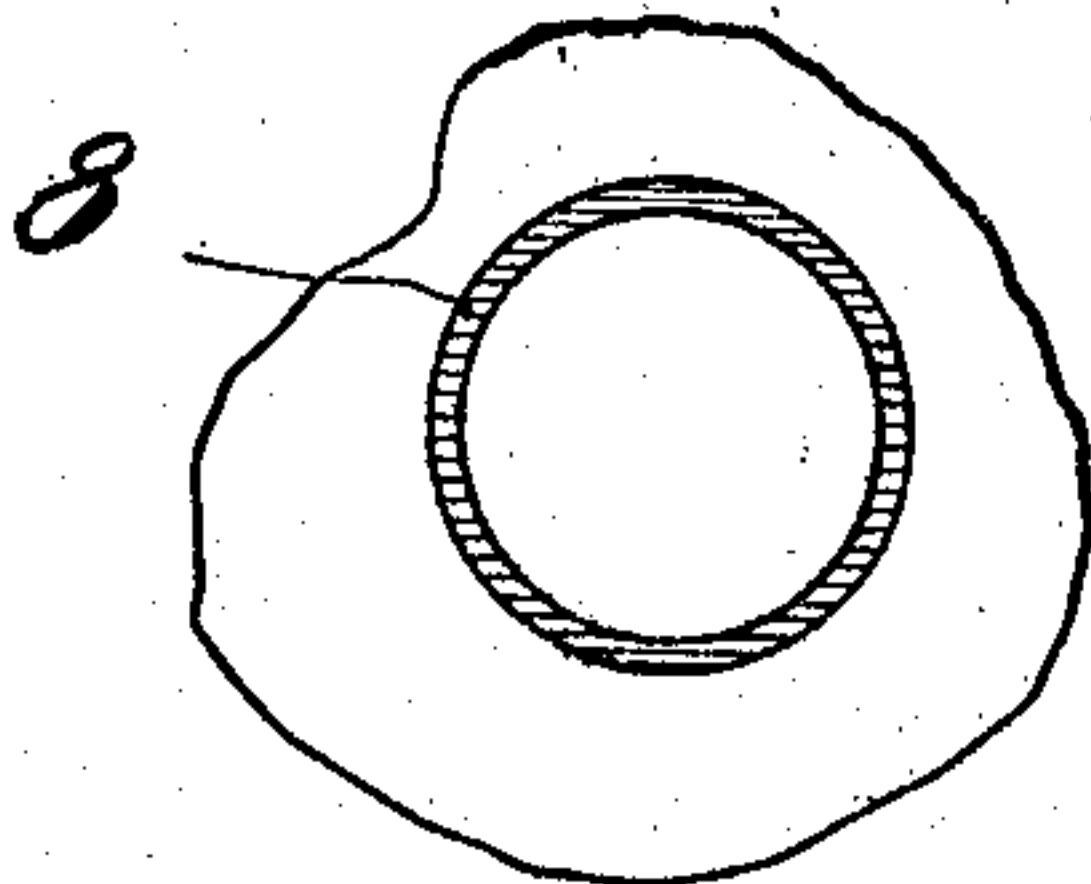


Fig. 4.

Witnesses:

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UNITED STATES PATENT OFFICE.

WILLIAM N. MOORE, OF REDLANDS, CALIFORNIA.

APPARATUS FOR APPLYING ADHESIVES.

No. 911,253.

Specification of Letters Patent.

Patented Feb. 2, 1909.

Application filed July 24, 1908. Serial No. 445,230.

To all whom it may concern:

Be it known that I, WILLIAM N. MOORE, a citizen of the United States, and a resident of Redlands, in the county of San Bernardino and State of California, have invented a certain new and useful Improvement in Apparatus for Applying Adhesives, of which the following is a specification.

This invention relates to apparatus for applying wax, gum, glue or other adhesive.

Speaking generally, the object of the invention is to provide an improved apparatus for quickly and conveniently applying a coating of any suitable adhesive to defined and restricted areas of any objects.

Specifically, the object of the invention is to provide an apparatus designed and adapted for applying a coating of adhesive to the surfaces of citrus fruit and the like, in the practice of an improved process, invented by me, for affixing or applying labels thereto, which said process is fully described in an application for Letters Patent therefor filed by me in the United States Patent Office on the 6th day of July, 1908, Serial No. 442,108.

My improved apparatus consists of the various features, combinations of features and details of construction hereinafter described and claimed.

In the accompanying drawing, in which my invention is fully illustrated—Figure 1 is a side view of my improved apparatus showing an orange presented thereto so that a desired area thereof will receive a coating of adhesive. Fig. 2 is a vertical central sectional view thereof, parallel with plane of Fig. 1, the orange being omitted. Fig. 3 is a horizontal sectional view on the line 3—3 of Fig. 1; and Fig. 4 is a plan view of an orange showing the preferable manner of applying the adhesive thereto.

Referring now to the drawing, 1 designates a suitable receptacle for containing the adhesive, said receptacle being preferably made of suitable sheet metal and of any desired size. The adhesive is adapted to be introduced into the receptacle 1 and to be removed therefrom through a suitable hole or opening therein, as a hole 2 in the top thereof which, as shown, is adapted to be closed by means of a cover 3.

The dotted line 4 indicates the level of the adhesive which it is desirable to maintain in said receptacle. Obviously, however, this level will vary as the adhesive is used.

The receptacle 1 has a spout 5, which communicates with the interior thereof preferably at a considerable distance below the level 4 of the adhesive so that substantially the entire contents of said receptacle may be used without refilling the same.

The discharge end of the spout 5 corresponds in shape and size to the area of the fruit or other object to which it is desired to apply the adhesive, which is preferably slightly smaller than the size of the label, for example, which it is desired to apply or affix thereto. The spout 5 is packed with a suitable porous packing 6, as sponge or the like, and is controlled by means of a suitable valve 7 whereby, in operation, only a sufficient quantity of adhesive will be permitted to enter said spout to maintain the packing 6 thoroughly saturated with said adhesive.

The packing 6 preferably terminates slightly within the discharge end of said spout which is, preferably, directed downwardly, so that both gravity and capillary action will cause the adhesive to seep or leach through the porous packing 6, and to accumulate at the discharge end of said spout in the form of a film extending entirely around the same. Thus, when an orange or other object is presented to the end of the spout 5, as shown in Fig. 1, a small quantity of the adhesive will be applied thereto, in the form of a ring corresponding to the size of the discharge end of the spout 5, as shown at 8, Fig. 4. Obviously, however, if for any reason desired, the entire surface of the orange presented to the discharge end of the spout 5 may be coated with adhesive by permitting the packing 6 to extend flush with the discharge end of the spout 5 so as to contact with the surface of said orange when presented thereto.

To prevent the packing 6 from working back through the spout 5 and into the valve 7, and thereby interfering with its operation, a screen 9 is secured across the spout 5 preferably closely adjacent to said valve.

My invention contemplates the use of any desired or approved form of valve 7. As shown, an ordinary globe valve is used, the spout 5 communicating with the interior of the valve casing at one side of the valve seat and said casing being cut away at the opposite side of the valve seat, so that the interior thereof will be in open communication with the interior of the receptacle 1. Also, to prevent foreign substances from entering

the valve casing, which might obstruct the valve, a screen or perforated plate 10 is preferably secured over the open side of said valve casing.

5 Where the adhesive is hard or too thick to flow freely, as is the case with the adhesive which I use in the practice of my improved process set out in said application Serial No. 442,108, I provide means for melting or heating the adhesive in the receptacle 1 so that it will be of a consistency to flow with desired freedom. Any desired or approved means may be used for this purpose. I prefer, however, to use the means shown, which are
15 as follows:—Extending across the receptacle 1, are one or more tubes 11 so located that with a normal level of adhesive in the receptacle 1, said tubes will be entirely submerged. An incandescent electric light, indicated at 12, is adapted to be inserted into each of the tubes 11, one end of each of said tubes opening outside of the receptacle and the opposite ends thereof being preferably closed to prevent the heat from the lamps 12
25 from being carried off by currents of air passing through said tubes. With the described construction it is obvious that, by using different numbers of lights 12, or lights of different candle power, the contents of the
30 receptacle may be heated to different degrees.

When the apparatus is not in use, the valve 7 is closed to prevent loss of the adhesive.

35 I claim:—

1. An apparatus for applying adhesives, comprising a suitable receptacle, a spout on said receptacle and a porous packing in said spout which terminates substantially flush
40 with the discharge end thereof, whereby, when, in the operation of the apparatus, an object is presented to the discharge end of said spout, an area thereof of substantially the size and shape of the discharge end of
45 said spout will receive a coating of adhesive.

2. An apparatus for applying adhesives, comprising a suitable receptacle, a spout on said receptacle and a porous packing in said spout which terminates slightly within the
50 discharge end thereof, whereby, when, in the operation of the apparatus, an object is presented to the discharge end of said spout, a ring shaped area thereof of substantially the

size and shape of said discharge end of said spout will receive a coating of adhesive. 55

3. An apparatus for applying adhesives, comprising a suitable receptacle, a spout on said receptacle the discharge end of which is directed downwardly and a porous packing in said spout which terminates substantially
60 flush with the discharge end thereof, whereby when, in the operation of the apparatus, an object is presented to the discharge end of said spout, an area thereof substantially of the size and shape of said discharge end of
65 said spout will receive a coating of adhesive.

4. An apparatus for applying adhesives, comprising a suitable receptacle, a spout on said receptacle and a porous packing in said spout which terminates substantially flush
70 with the discharge end thereof, whereby, when, in the operation of the apparatus, an object is presented to the discharge end of said spout, an area thereof of substantially the size and shape of said discharge end of
75 said spout will receive a coating of adhesive, and a valve which controls said spout.

5. An apparatus for applying adhesives, comprising a suitable receptacle, a spout on said receptacle, a porous packing in said
80 spout which terminates substantially flush with the discharge end thereof, whereby, when, in the operation of the apparatus, an object is presented to the discharge end of said spout, an area thereof of substantially
85 the size and shape of said discharge end of said spout will receive a coating of adhesive and means to heat the contents of said receptacle, said means consisting of a tube or tubes
90 which extend transversely of said receptacle in such position that with a normal level of adhesive in said receptacle, said tube or tubes will be entirely submerged therein, one end of said tube or tubes opening outside of
95 said receptacle and the opposite end or ends thereof being closed, and an incandescent electric lamp or lamps adapted to be removably inserted into said tubes.

In testimony, that I claim the foregoing as my invention, I affix my signature in presence of two subscribing witnesses, this 6th
100 day of July, A. D. 1908.

WILLIAM N. MOORE.

Witnesses:

LEAFIE PAIGE,
FRED W. PHELPS.