

A. D. OTTO,
SAFETY CARTRIDGE LOADER.
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917,649.

Patented Apr. 6, 1909.

Fig. 1.

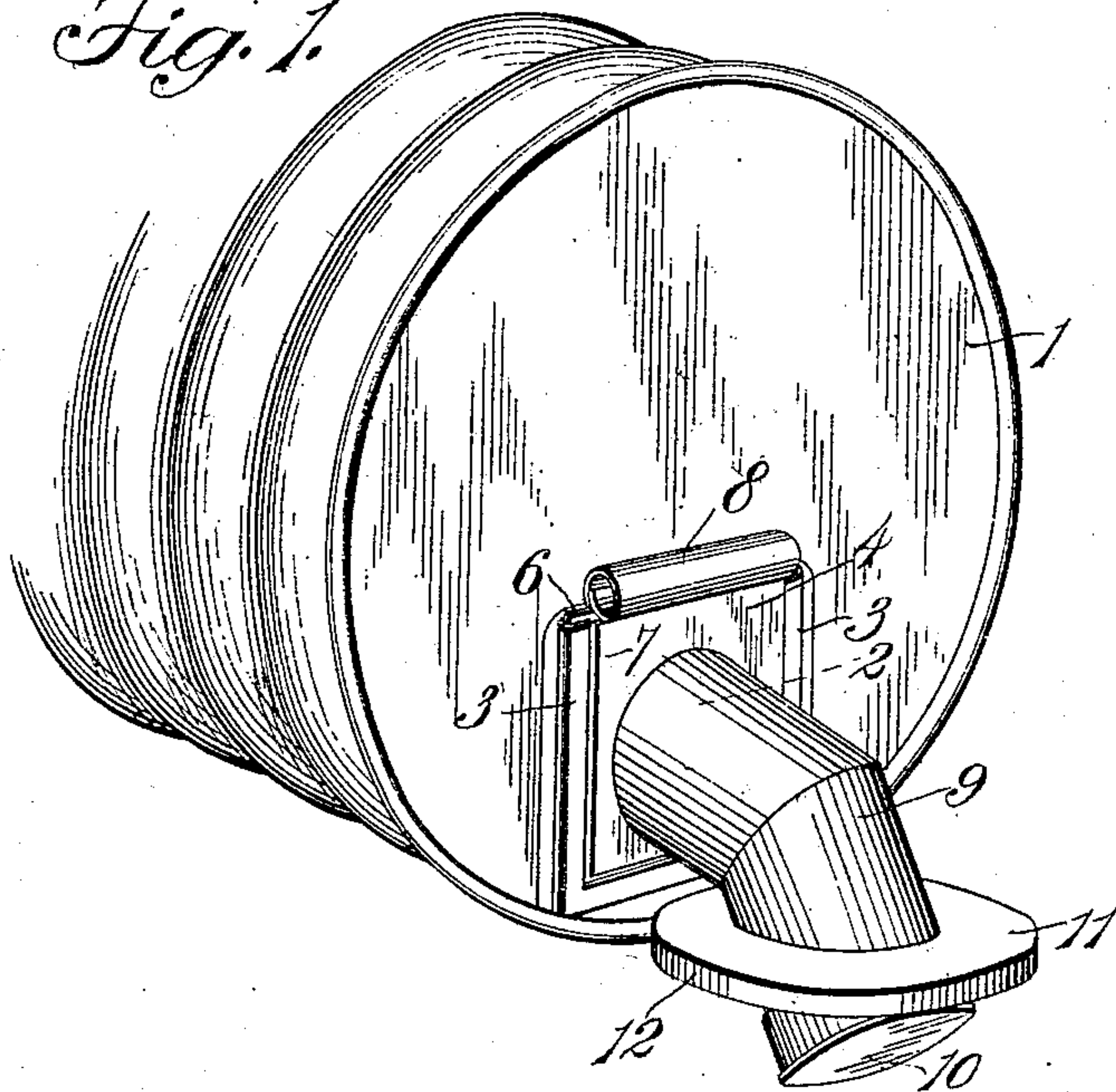


Fig. 2.

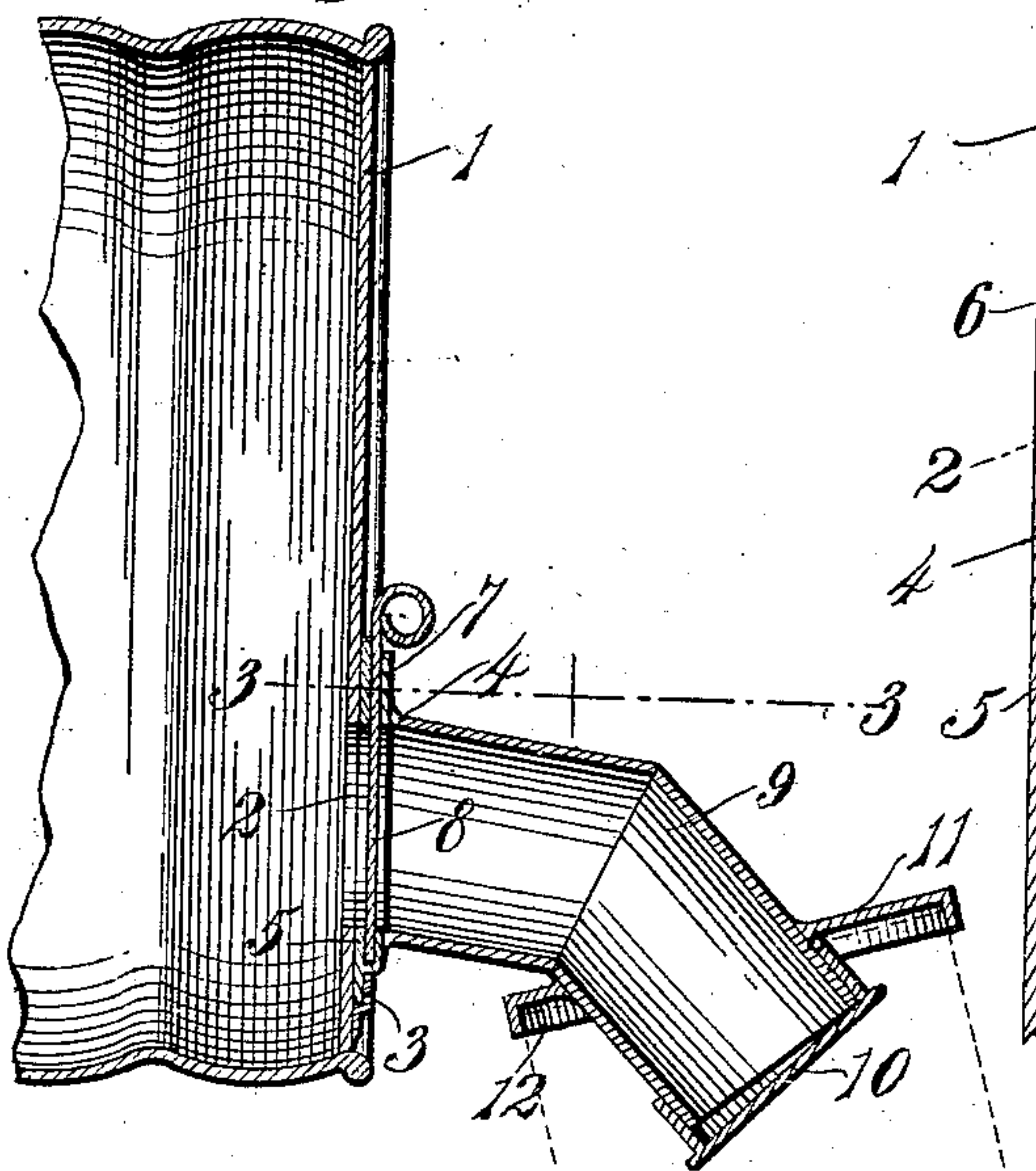
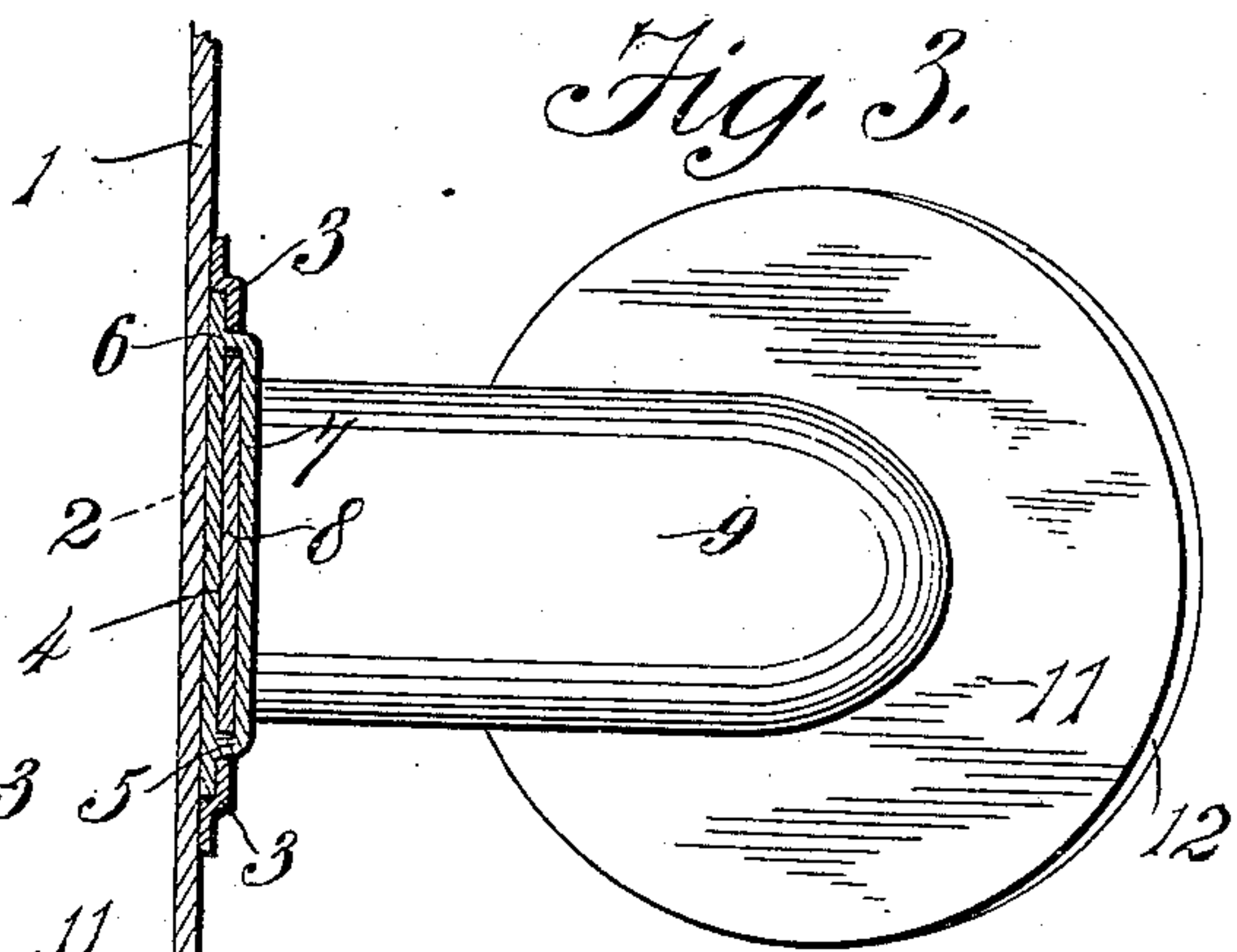


Fig. 3.



Witnesses

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SAFETY CARTRIDGE-LOADER.

No. 917,649.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, ARTHUR D. OTTO, a citizen of the United States, residing at Hegins, in the county of Schuylkill and State of Pennsylvania, have invented certain new and useful Improvements in Safety Cartridge-Loaders, of which the following is a specification, reference being had to the accompanying drawings.

My invention relates to improvements in safety cartridge loaders and the like.

The object of the invention is to provide a powder can with an improved closure or cover by means of which paper cartridges used in mine blasting may be quickly and conveniently filled without danger of explosion and without wasting any of the powder.

Another object of the invention is to provide a safety closure of this character which may be substituted for the closures now in use on powder cans.

With the above and other objects in view, the invention consists of the novel features of construction and the combination and arrangement of parts hereinafter described and claimed, and illustrated in the accompanying drawings, in which—

Figure 1 is a perspective view of a powder can illustrating the application of my invention thereto; Fig. 2 is a vertical section through the invention and one end of the powder can; and Fig. 3 is a detail horizontal section taken on the plane indicated by the line 3—3 in Fig. 2.

In the drawings 1 denotes a powder can or receptacle of any description having an outlet opening 2 arranged, preferably, adjacent to the edge of one of its ends or heads, the can, as illustrated, being cylindrical. Said outlet openings in powder cans now in general use are closed by removable slides which have their opposite edges engaged with guide strips 3 arranged on opposite sides of the openings 2 and soldered or otherwise secured upon the ends of the cans in parallel relation.

4 denotes my improved safety closure which comprises a body 5 in the form of a slide adapted to engage the guides 3 and to take the place of the old cover slide above mentioned. Said slide or body portion 5 consists of two plates 6, 7 spaced apart and secured together along their opposite side and bottom edges so as to receive between their open top edges a removable valve plate or slide 8 which is adapted, when inserted in

the body 5, to close an opening formed centrally in the base plate 6 so as to register with the outlet or discharge opening 2 in the can when said body is arranged between the guides 3. The valve plate or slide 8 has its upper edge rolled or otherwise suitably shaped to provide a finger piece by means of which it may be readily raised or lowered to open or close the device. The outer plate 7 of the body 5 is also formed with an opening which registers with the opening in the base plate and the outlet opening in the can, and projecting from the opening in the plate 7 is a tubular discharge pipe or spout 9 which is turned downwardly so that its open lower end terminates somewhat below the bottom of the body or slide 5. Said downwardly and outwardly projecting open end of the spout 9 may be provided with a removable cap or cover 10 that may be retained upon it by the frictional engagement of the flange or rim of said cap; and upon said spout, at a suitable distance from its lower and outer end, is arranged a guard 11. The latter is in the form of a semicircular plate or disk through which the spout projects and which is provided with a depending annular flange 12. The object of this guard is to cover the open top of a paper blasting cartridge held beneath the spout while being filled, so as to prevent all danger of sparks from lamps carried by miners or located nearby, from dropping into the cartridge.

In Fig. 2 I have indicated in dotted lines a cartridge arranged beneath the spout and it will be seen that the guard 11 will effectively cover the open top of the same and render the entrance of sparks impossible. Owing to the shape of the spout 9 and to the provision of the valve plate 8 and the cover cap 10 it will be seen that all danger of the entrance of sparks into the can will be obviated.

By constructing the body 5 of the device in the form of a slide as above set forth it will be seen that it may be readily substituted for the slidable closures now used on powder cans.

Having thus described my invention what I claim is:

As an article of manufacture, a safety closure for a powder can or the like comprising a rectangular body plate in the form of a slide adapted to engage oppositely disposed guides at the outlet of a powder can and formed with a centrally arranged outlet

opening, a second plate secured to and
spaced from the body plate and having an
opening to register with the one in the
latter, a valve plate slidable between said
5 body and second plate and formed at one
edge with a finger piece, an angular spout
secured at one end over the opening in the
second plate, a removable cap upon the
other end of said spout, and an angularly
10 arranged guard ring upon the spout adjacent

to its last mentioned end and formed with a
surrounding depending flange, substantially
as and for the purpose specified.

In testimony whereof I hereunto affix my
signature in the presence of two witnesses. 15

ARTHUR D. OTTO.

Witnesses:

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