

(No Model.)

P. SAUER.

DETACHABLE AND ADJUSTABLE LOCKED CUT-OFF POWDER SPOUT.

No. 543,540.

Patented July 30, 1895.

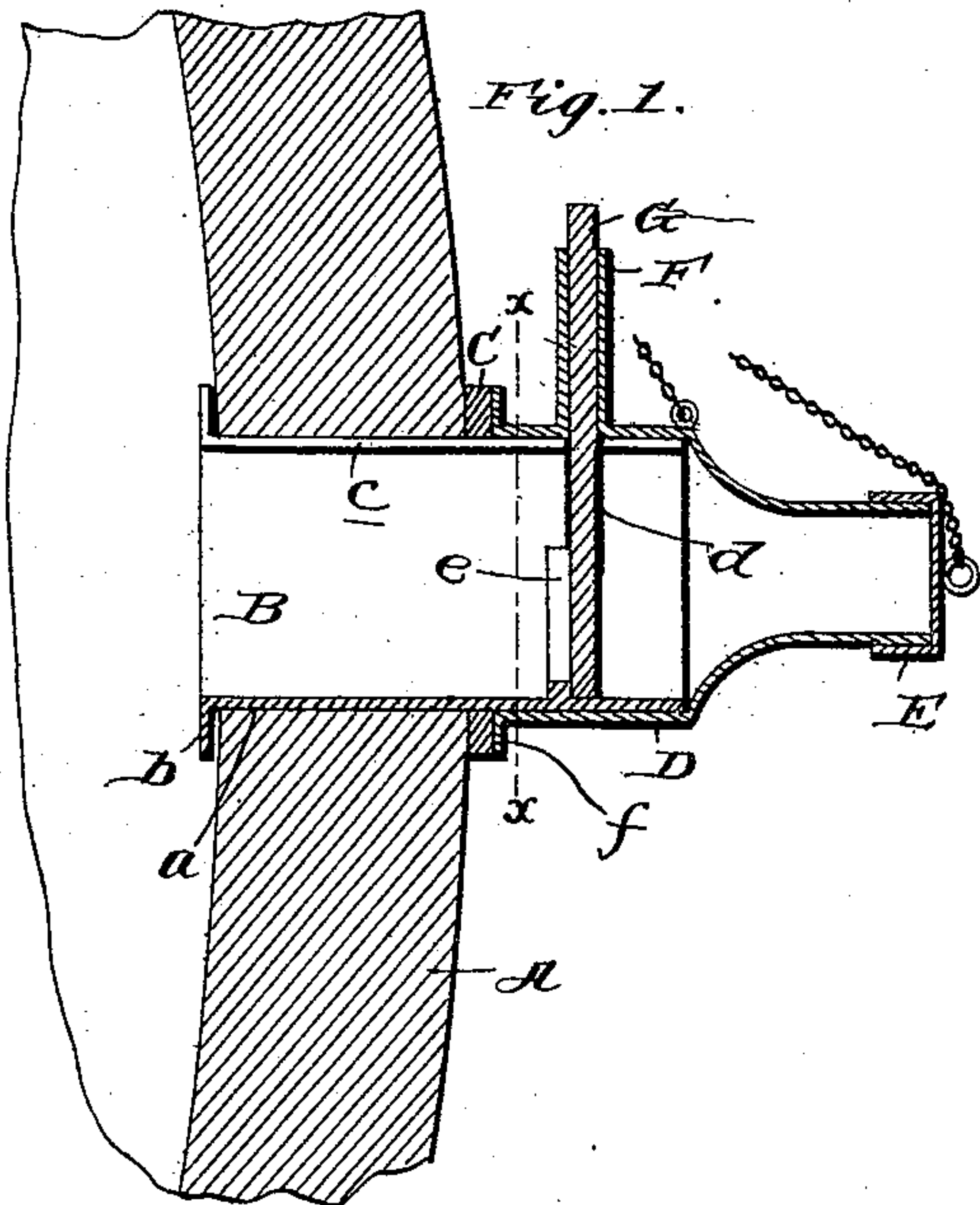
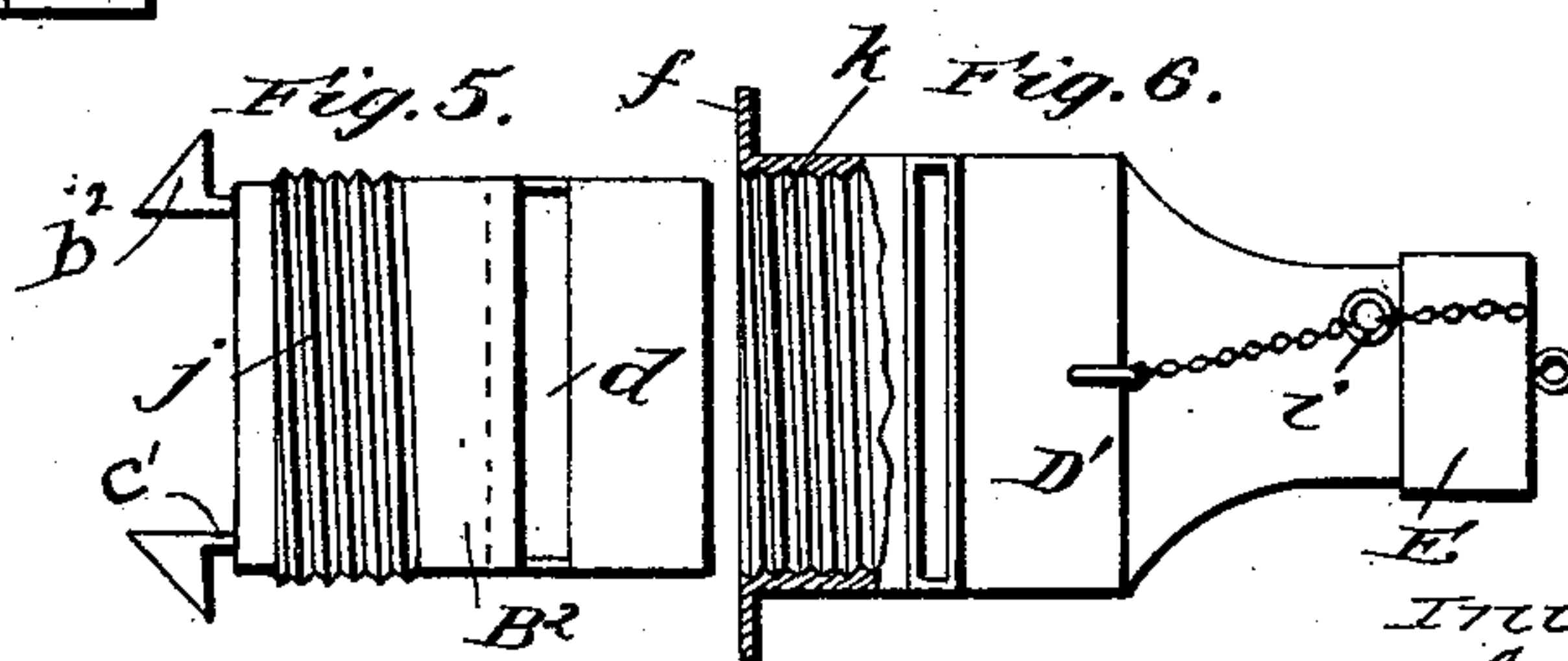
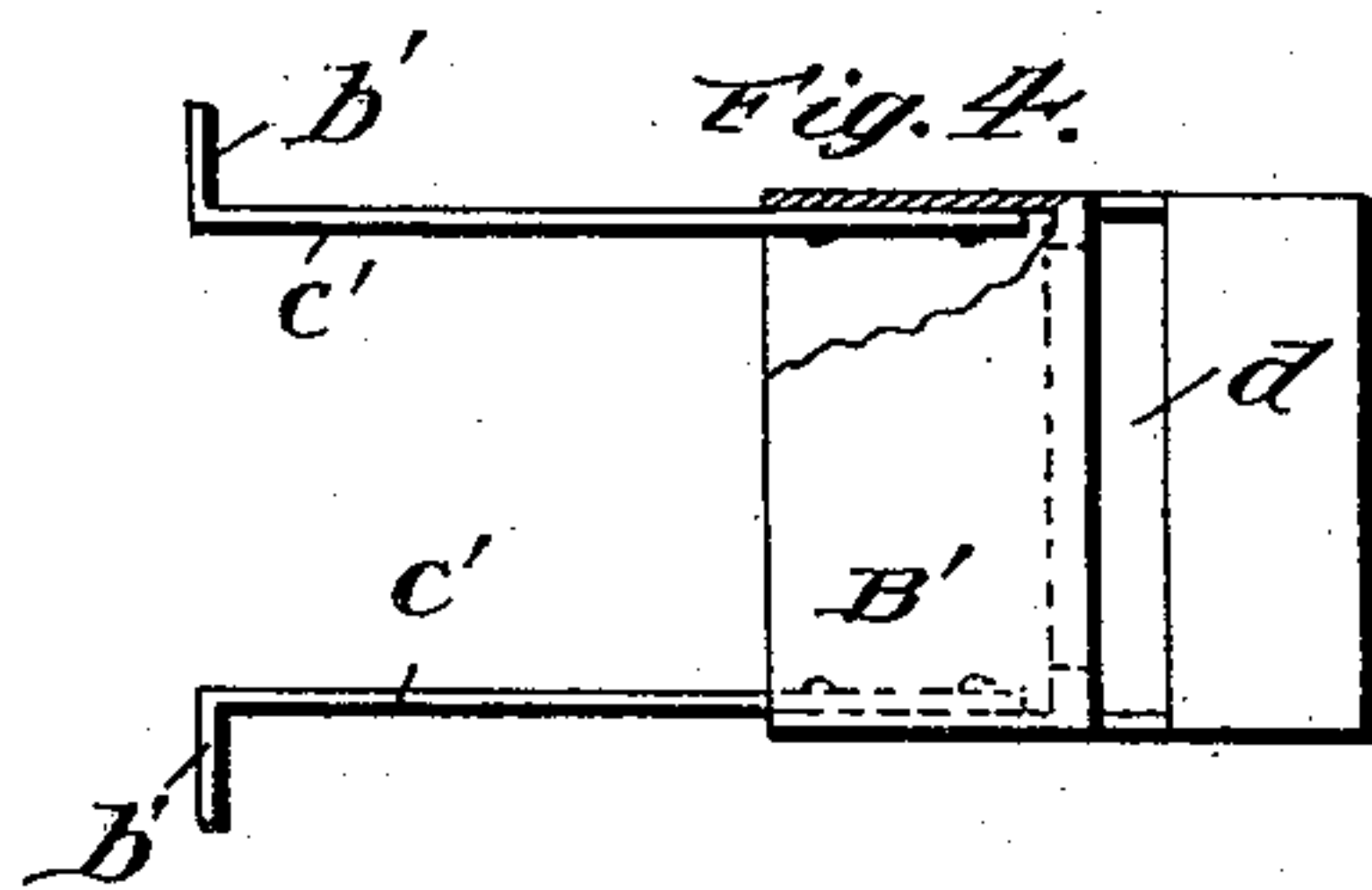
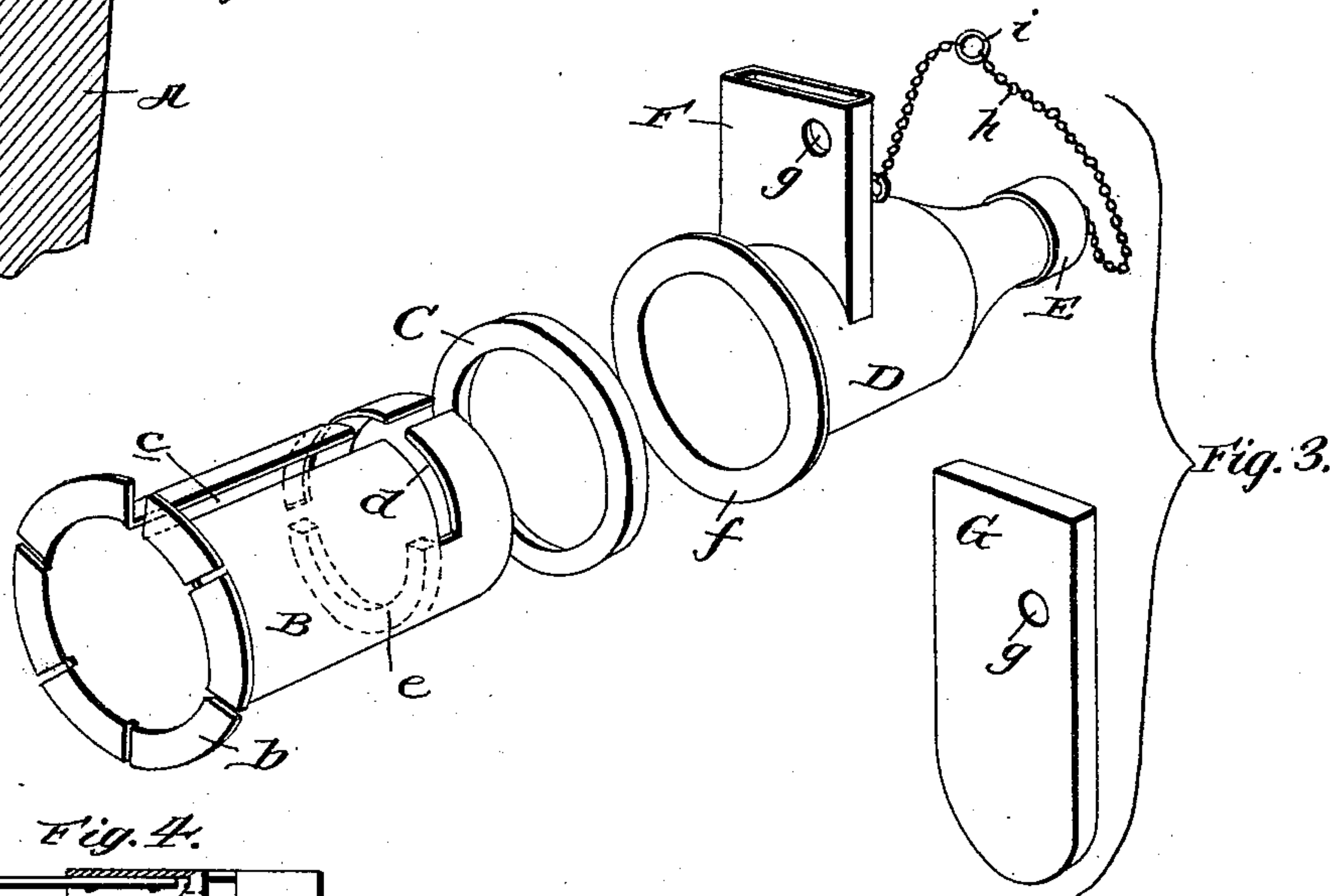
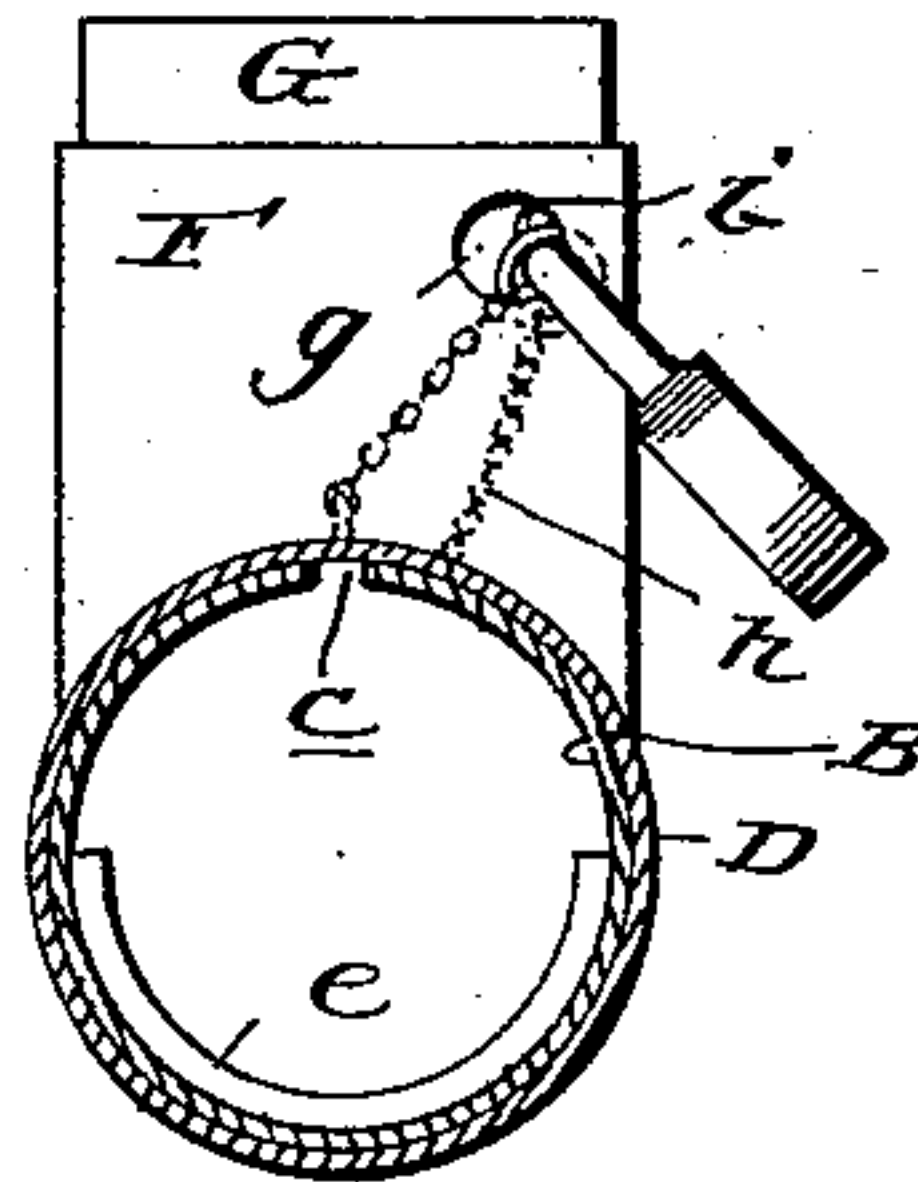


Fig. 2.



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DETACHABLE AND ADJUSTABLE LOCKED CUT-OFF POWDER-SPOUT.

SPECIFICATION forming part of Letters Patent No. 543,540, dated July 30, 1895.

Application filed September 18, 1894. Serial No. 523,429. (No model.)

To all whom it may concern:

Be it known that I, PHILIP SAUER, a citizen of the United States, residing at Jobs, in the county of Hocking and State of Ohio, have invented certain new and useful Improvements in Spouts for Powder-Kegs or the Like; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to improvements in spouts for powder-kegs and the like; and it has for its general object to provide a cheap and simple spout adapted to be readily connected to a powder-keg and as readily detached therefrom, and one embodying a cut-off gate adapted to normally rest in a position to close the spout and means whereby said gate may be locked in its closed position, so as to prevent mischievous and unauthorized persons from obtaining powder from the keg or disconnecting the spout from the keg.

Other objects and advantages of the invention will be fully understood from the following description and claims, when taken in connection with the annexed drawings, in which—

Figure 1 is a vertical section illustrating my improved spout as connected to a portion of a powder-keg or the like. Fig. 2 is a transverse section taken in the plane indicated by the line *xx* of Fig. 1. Fig. 3 comprises perspective views of the several parts of the spout. Fig. 4 is an elevation, partly in section, illustrating a modification of the inner tubular member of the spout. Fig. 5 is another modification of the inner tubular member of the spout; and Fig. 6 is an elevation, partly in section, illustrating the modified form of the outer tubular member of the spout, which is designed to be used in conjunction with the inner member or section shown in Fig. 5.

Referring by letter to said drawings, and more particularly to Figs. 1, 2, and 3 thereof, A indicates a portion of a powder-keg or other receptacle having a bung-hole *a*, and B indicates the inner tubular member or section of my improved spout. This member or section B is preferably formed of resilient sheet metal and is provided at its inner end with the segment flange-sections *b*, designed to engage the

inner side of the keg A and hold it in position, as shown in Fig. 1, and it is provided with a longitudinal slot *c*, (see Fig. 3,) whereby it will be seen that its diameter may be readily reduced, so as to enable its flange *b* to readily pass through the bung-hole *a*, and that therefore it may be readily connected to and disconnected from the keg. The said inner member or section B of the spout is furthermore provided with a peripheral slot *d*, which bisects the slot *c*, as shown, and with an interior rib *e*, which rests at one side of the vertical plane of the slot *d*, as better shown in Fig. 1, for a purpose presently described.

C indicates a washer or ring of rubber or other suitable material, which is designed to surround the inner spout member B and rest against the outside of the keg A, so as to assist in holding said section B in position and make a tight joint, and D indicates the outer tubular member or section of the spout, which is designed and adapted to receive the inner section B and is preferably provided at its inner end with a flange *f* to bear against the washer or ring C, as shown. This outer member or section D preferably has its outer end contracted or reduced in diameter to receive a cap E, and it is provided at an intermediate point in its length with a sleeve F to receive the cut-off gate or valve G, as shown in Fig. 3. The said sleeve F is arranged at such a point in the length of the section D that when said section D is in its proper position on the section B it (the sleeve) will register with the slot *d* in the section B, so as to enable the gate G, when it is lowered in the sleeve, to enter the section B and rest at the side of the rib *e*, so as to close the spout and at the same time assist in holding the outer section D in position on the section B and thereby prevent a casual disconnection of the said section B from the keg.

It is often desirable to prevent mischievous or unauthorized persons from obtaining powder from the keg, and to this end I provide the sleeve F and the gate G with eyes *g*, which are designed to register and receive the bow of a padlock, as shown in Fig. 2, or any other fastening device which will secure the gate in its closed position.

When the gate G is secured in its closed position, as stated, it will secure the outer

section D upon the section B and will consequently prevent a person from compressing said section B and disconnecting it from the keg. When desirable, the chain *h*, which connects the cap E and the spout-section D, may be provided with a ring *i*, and the bow of the padlock may also be passed through this, as shown in Fig. 2, so as to secure the cap on the section D, and thereby make it more difficult for an unauthorized person to gain access to the powder.

In the practice of the invention it is simply necessary for a person who desires to obtain powder from the keg to raise the gate G, when the powder will pass through the spout and into the vessel held to receive it. When sufficient powder is obtained and the gate is released, it will, by reason of gravity, resume its normal position (shown in Fig. 1) and close the spout.

When it is desired to detach the spout from the keg, it is simply necessary for the operator to remove the outer section D from the section B after drawing the gate G out of the slot *d* and then compress the section B, so as to move the edges of the slot *c* together or lap them and the flange *b* and draw said section B through the bung-hole. In order to attach the spout to a keg, the operation above described is reversed, the section B being first compressed to permit of its flanged end being passed through the bung-hole and the ring or washer C, section D, and gate G being placed in position in the order named.

In Fig. 4 of the drawings I have illustrated a modified form of inner section B', which may be employed, in conjunction with the outer section D and gate G in lieu of the section B described. This inner section B' has a peripheral slot *d*, similar to that of the section B, to receive the gate G, and it is provided with the spring-legs *c'*, having angular branches *b'* at their inner ends, through the medium of which it may be readily secured in the bung-hole of a keg in such a manner that it may be readily detached therefrom when desired, it being simply necessary when it is desirable to detach said section to move the free ends of the legs *c'* toward each other, so as to disengage their angular branches from the inner side of the keg.

In Fig. 5 of the drawings I have illustrated a modified form of member or section B², which is similar to section B', with the exception that it is exteriorly threaded, as indicated by *j*, and has a plain inner end designed to extend into the bung-hole of a metallic can. This inner member or section B² also differs from that shown in Fig. 4 in that its legs *c'* are shorter and have their branches *b²* beveled, as shown, in order that they may be thrust into the bung-hole to enable them to engage the inner side of the can. By passing a finger through the section B² a person may draw one of the legs *c'* in toward the longitudinal center of the said section B², and may then readily draw the section out of the bung-

hole and disconnect it from the can. The section B² is not adapted to be used in conjunction with the outer section D, but is designed to receive and be engaged by the outer section D', which has interior threads *k* to engage the threads *j*. The section D' is similar to the section D, with the exception of the threads *k*, and is designed to receive the gate G in the manner before described. When the gate G is secured upon the section D' the introduction of an instrument to move one of the legs *c'* will be prevented.

It will be seen from the foregoing that I have provided a very cheap and simple spout, and one which may be readily connected to and disconnected from a keg, and which will serve to prevent waste of powder and the removal of the same by unauthorized persons.

It will also be perceived that with my improved spout a miner or other person who has occasion to use powder may draw it from a keg with greater safety than when a plain spout having no cut-off is employed or the powder is poured from the open end of a keg.

While my improved spout is designed more especially for use upon powder-kegs and the like, I do not desire to be understood as confining myself to such use, as the spout may be used upon receptacles containing various substances.

Having described my invention, what I claim is—

1. A spout comprising an inner tubular section having a slot *d*, an outer tubular section arranged on the inner section and having a sleeve registering with the slot of said inner section, and a gate arranged in the sleeve of the outer section and the slot *d*, of the inner section and adapted to close the spout and secure the outer section on the inner section, substantially as specified.

2. A spout comprising an inner tubular section adapted to be detachably secured in the bung-hole of a keg and having a slot *d*, an outer tubular section arranged on the inner section and having a sleeve registering with the slot of said inner section and a gate arranged in the sleeve of the outer section and the slot *d*, of the inner section and adapted to close the spout, substantially as specified.

3. A spout comprising an inner tubular section having a slot *d*, an outer tubular section arranged on the inner section, a sleeve carried by the outer section and registering with the slot *d*, of the inner section and having eyes *g*, in its side walls, a gate arranged in the sleeve of the outer section and the slot of the inner section and adapted to close the spout and having an eye *g*, adapted to register with those of the sleeve and a securing device extending through the eyes of the sleeve and the eye *g*, of the gate so as to hold the gate in its closed position, substantially as and for the purpose set forth.

4. A spout comprising an inner tubular section having a slot *d*, an outer tubular section arranged on the inner section, a sleeve car-

ried by the outer section and registering with the slot d , of the inner section and having eyes g , in its side walls, a gate arranged in the sleeve of the outer section and the slot of the inner section and adapted to close the spout and having an eye g , adapted to register with those of the sleeve, a cap adapted to take over the outer end of the outer section, a chain connecting said cap and the outer section and having a ring i , and a securing device adapted to extend through the ring i , and the eyes g , of the sleeve and gate so as to secure the cap and gate in position substantially as specified.

15 5. A spout comprising an inner section having a flange adapted to engage the inside of a keg or receptacle and a longitudinal slot extending throughout its length so as to permit of it being reduced in diameter to enable the

flange to pass through a bung-hole or opening 20 in the keg, and an outer section secured upon the inner section, substantially as specified.

6. A spout comprising an inner tubular section having a slot d , an outer tubular section arranged on the inner section and having a 25 slot registering with the slot d , of said inner section and a gate arranged in the registered slots of the inner and outer sections and adapted to close the spout and secure the outer section on the inner section, substantially as 30 specified.

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

PHILIP SAUER.

Witnesses:

JOHN PHILLIPS,
W. S. MYERS.