

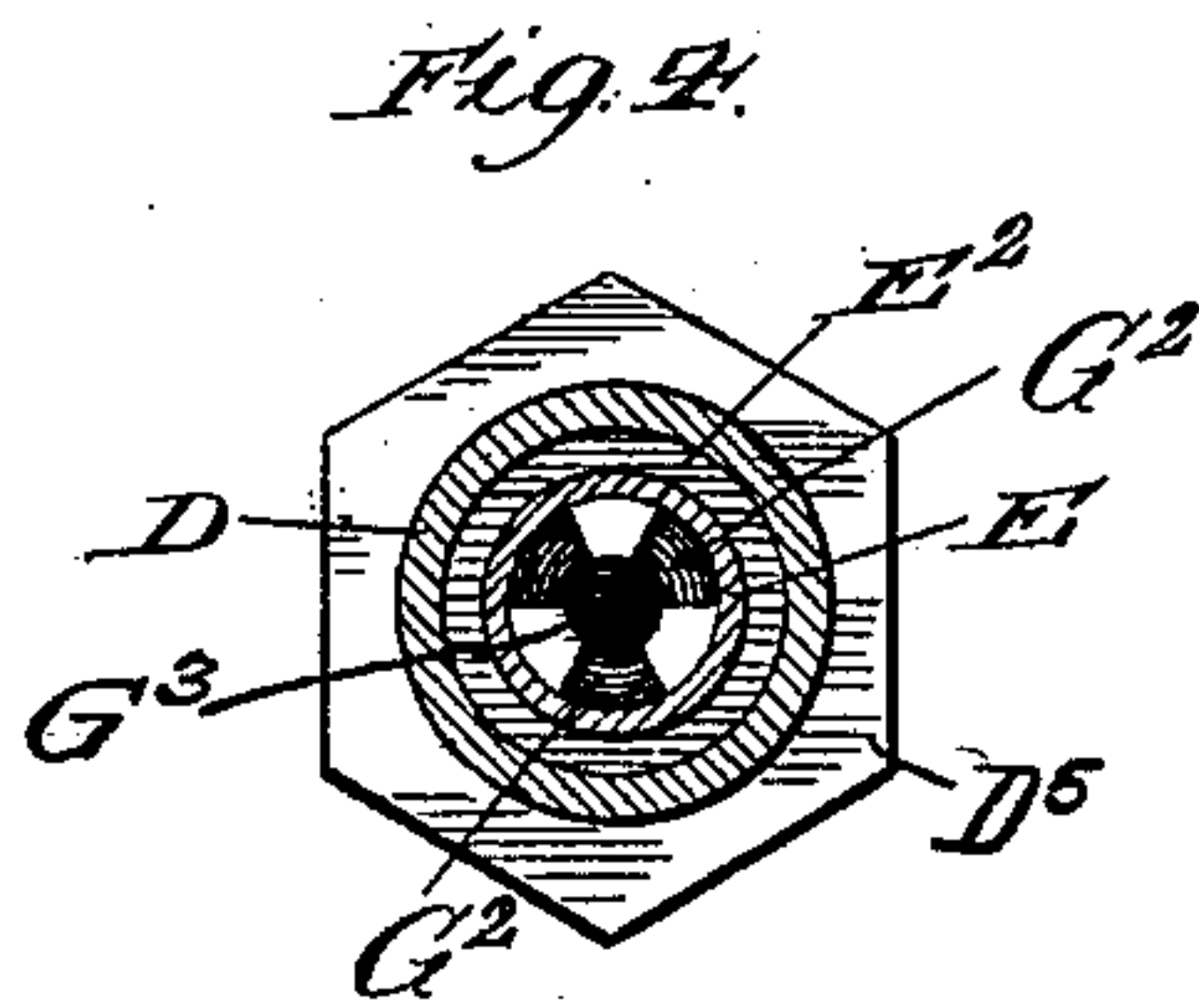
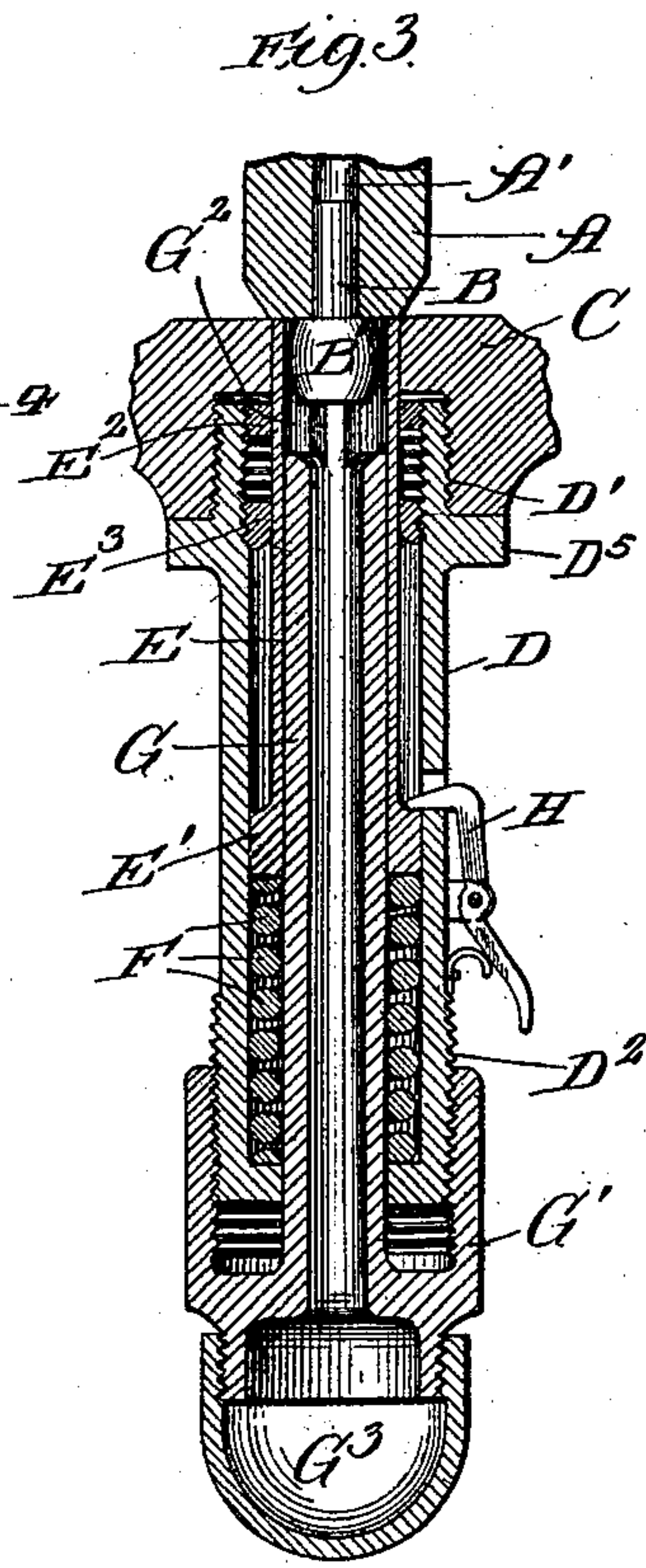
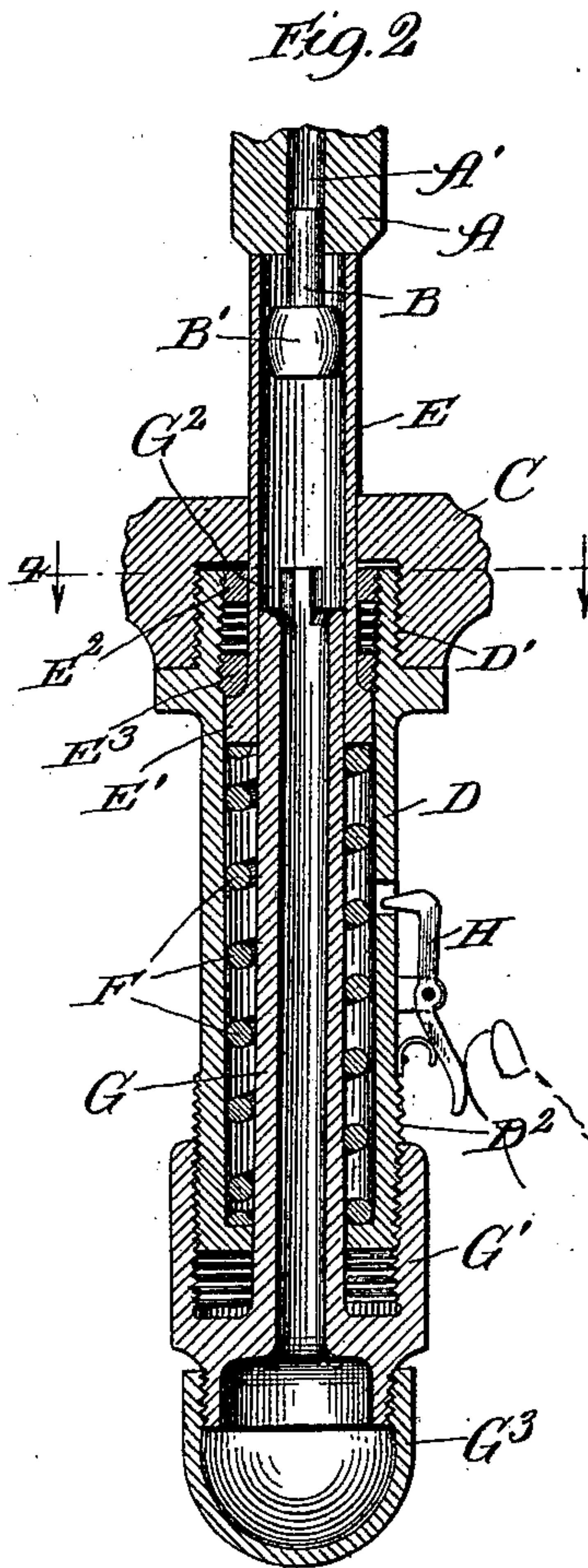
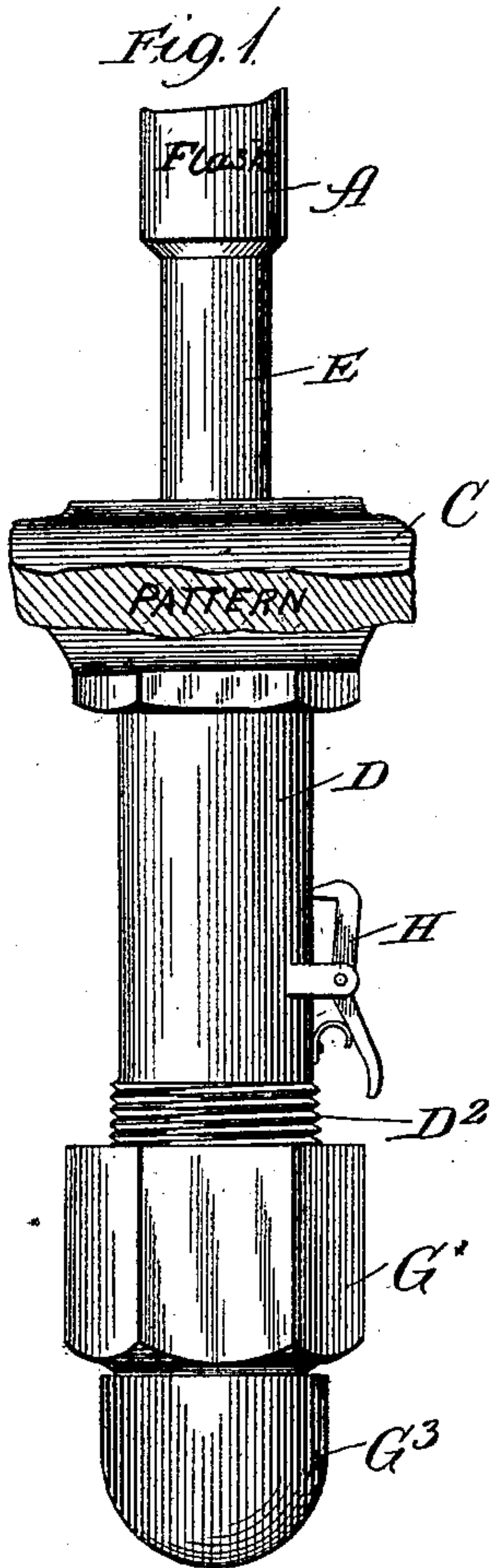
No. 632,246.

Patented Sept. 5, 1899.

H. C. COOPER.
MOLDING MACHINE CHAPLET ADJUSTER.

(Application filed May 31, 1899.)

(No Model.)



WITNESSES.

Lute S. Allen
D. J. Evans

INVENTOR

Harry C. Cooper

By

Walter H. Chamberlain
ATTORNEY.

UNITED STATES PATENT OFFICE.

HARRY C. COOPER, OF CHICAGO, ILLINOIS.

MOLDING-MACHINE CHAPLET-ADJUSTER.

SPECIFICATION forming part of Letters Patent No. 632,246, dated September 5, 1899.

Original application filed December 19, 1898, Serial No. 699,720. Divided and this application filed May 31, 1899. Serial No. 718,866. (No model.)

To all whom it may concern:

Be it known that I, HARRY C. COOPER, a citizen of the United States, residing at Chicago, county of Cook, State of Illinois, have
5 invented a certain new and useful Improvement in Molding-Machine Chaplet-Adjusters; and I 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
10 it pertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

My invention has for its object the production of a chaplet protector and adjuster for
15 use particularly in a molding-machine where the chaplets are inserted in the flask prior to the introduction of the sand into the flask.

It consists of a combination of devices and appliances hereinafter described and claimed.
20 In the drawings, Figure 1 is a side elevation of my chaplet protector and adjuster. Fig. 2 is a vertical section showing the arrangement of the parts before the mold is formed. Fig. 3 is a vertical section illustrating the position of the parts after the mold has been
25 formed. Fig. 4 is a cross-section on the line 4 4 of Fig. 2.

In carrying out the invention A represents a section of the flask or any part thereof—
30 such, for instance, as the runner-box. The particular point at which the chaplet is inserted in the flask depends entirely upon the style and shape of mold to be formed. I have therefore only illustrated a small portion of
35 the flask. In the flask is an orifice A', adapted to receive the stem B of the chaplet.

C represents a section of the pattern. Inasmuch as this may be of any shape or size I have illustrated only a small part.

40 It is understood, of course, that the mechanism comprising my invention is applied to a machine wherein the pattern is carried into the flask to form the mold—such, for instance, as that shown in my concurrently-pending
45 application filed December 19, 1898, Serial No. 699,720, of which this application is a division.

50 D is a tube engaged to the pattern by the threads D', and moving vertically therein is a tube E, having its end enlarged, as at E', to form a suitable bearing. A ring E² also serves

as a bearing and guide for the tube E. Another ring E³ also acts as a bearing and guide for the tube E and also forms a stop to limit the upward movement of the tube E. 55

A spring F is located in the tube D, one end bearing on the end of the tube E, while the other end bears on the end of the tube D. This spring tends to keep the tube E normally in its outer position. 60

G is another tube inserted in the tube D and extending up also into the tube E. It is provided with a flange G', interiorly threaded to engage the threads D² on the end of the tube D, so that it can be adjusted vertically 65 in the tube D. The upper end of the tube G is recessed, as at G², to permit any sand to drop down through the tube G, and a removable cup or cap G³ is provided on the end to catch this sand. 70

The operation will now be understood. Before the sand is inserted in the flask the tube E is adjusted so that it covers the head B' of the chaplet and bears against the flask. Now as the mechanism moves the flask A and the pattern C toward each other the tube E will be forced down into the tube D against the spring-pressure until the head of the chaplet B' comes into contact with the end of the tube G, which has been properly regulated through 80 the screw-threads G', and forces the chaplet into the flask, as shown in Fig. 3, just the requisite distance.

In order that when the pattern drops from the mold the tube E may be disengaged from 85 the flask, there is provided a beveled spring-catch H to engage over the end E' of the tube E. This catch is not essential, although in some cases it might be desirable, and for that reason I have shown it. 90

It will be seen from the above description that when the tube E engages the chaplet B' the chaplet is effectually protected from the sand during the formation of the mold and is adjusted in the flask at just the point desired, 95 so that when the mold is taken from the machine the chaplets project out in just the proper position.

What I claim is—

1. In a molding-machine the combination 100 with a flask and pattern mechanism and a chaplet carried by the flask of a shield to pro-

protect the chaplet from the sand, said shield carried by the pattern mechanism and adapted to engage over and protect the chaplet, substantially as described.

5 2. In a molding-machine the combination with the flask and pattern mechanism and a chaplet carried by the flask of a tube carried by the pattern mechanism extending to and engaging over the chaplet, said tube having
10 a yielding support to permit it to recede as the pattern and chaplet approach each other, substantially as described.

3. In a molding-machine the combination with the flask and pattern mechanism and a
15 chaplet carried by the flask of a shield carried by the pattern mechanism and extending to and engaging the chaplet, said shield having a yielding support to permit it to recede as the pattern and chaplet approach
20 each other and a spring for keeping said shield normally in its outer or extended position, substantially as described.

4. In a molding-machine the combination with the pattern mechanism of a chaplet pro-
25 tector and adjuster consisting of a tube extending to and over the chaplet, said tube carried by a casing on the pattern mechanism and adapted to telescope therein and a stop within the tube against which the chap-

let may bear and by which it is adjusted, sub- 30
stantially as described.

5. In a molding-machine, the combination with the pattern mechanism of a chaplet pro-
tector and adjuster consisting of a tube ex- 35
tending to and over the chaplet, said tube carried by a casing on the pattern mechanism and adapted to telescope therein and an adjustable stop within the tube against which
the chaplet may bear and by which it is ad-
justed, substantially as described. 40

6. In a molding-machine the combination with the pattern mechanism of a chaplet pro-
tector and adjuster consisting of a tube ex-
tending from the pattern mechanism to and
over the chaplet, said tube carried by a cas- 45
ing on the pattern mechanism and adapted to telescope therein, a stop within the tube against which the chaplet may bear and by
which it is adjusted and a catch adapted to
engage the tube when in its inner position, 50
substantially as described.

In testimony whereof I sign this specifica-
tion in the presence of two witnesses.

HARRY C. COOPER.

Witnesses:

GERTRUDE HEIDELBERGER,
LUTE S. ALTER.