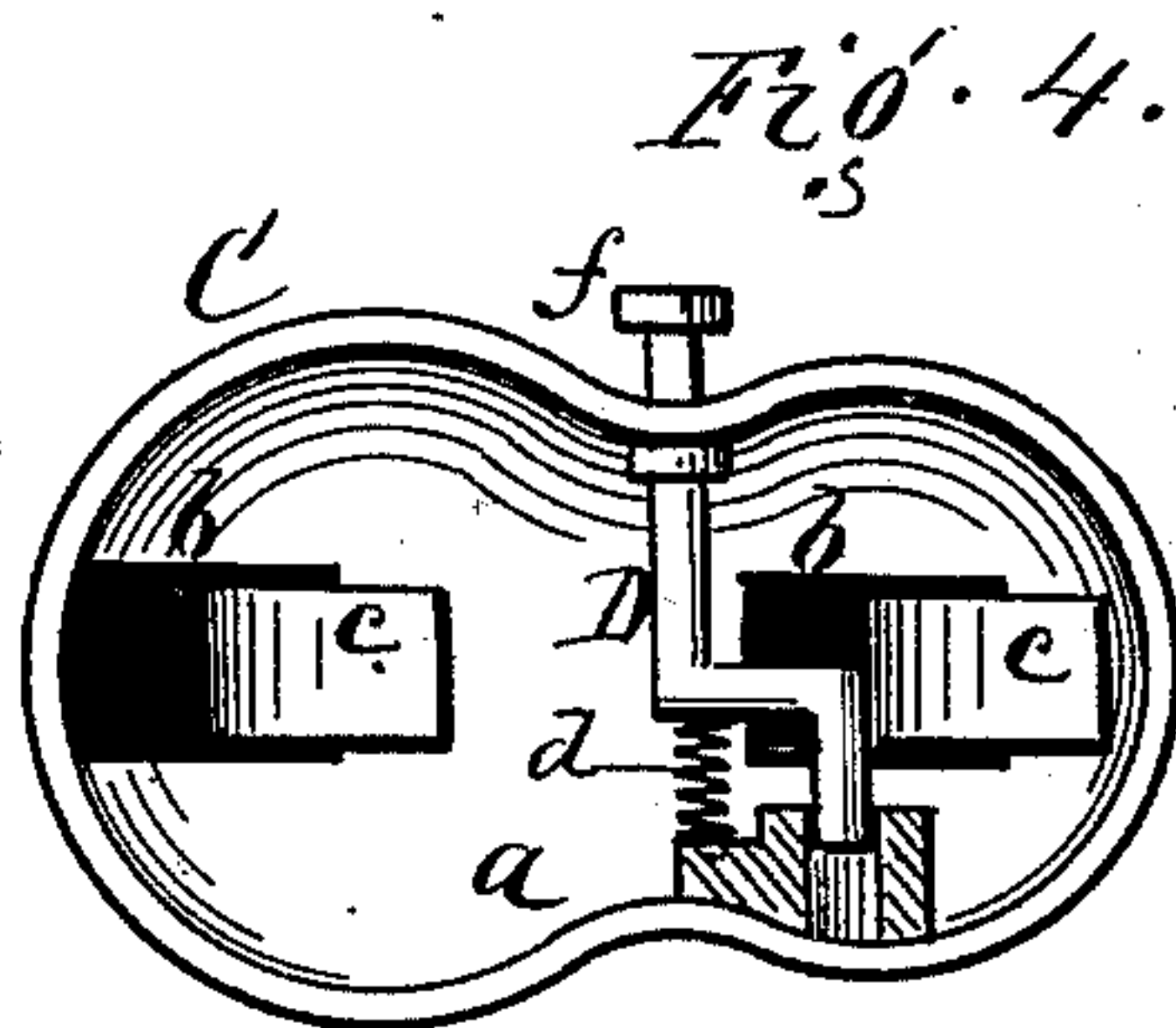
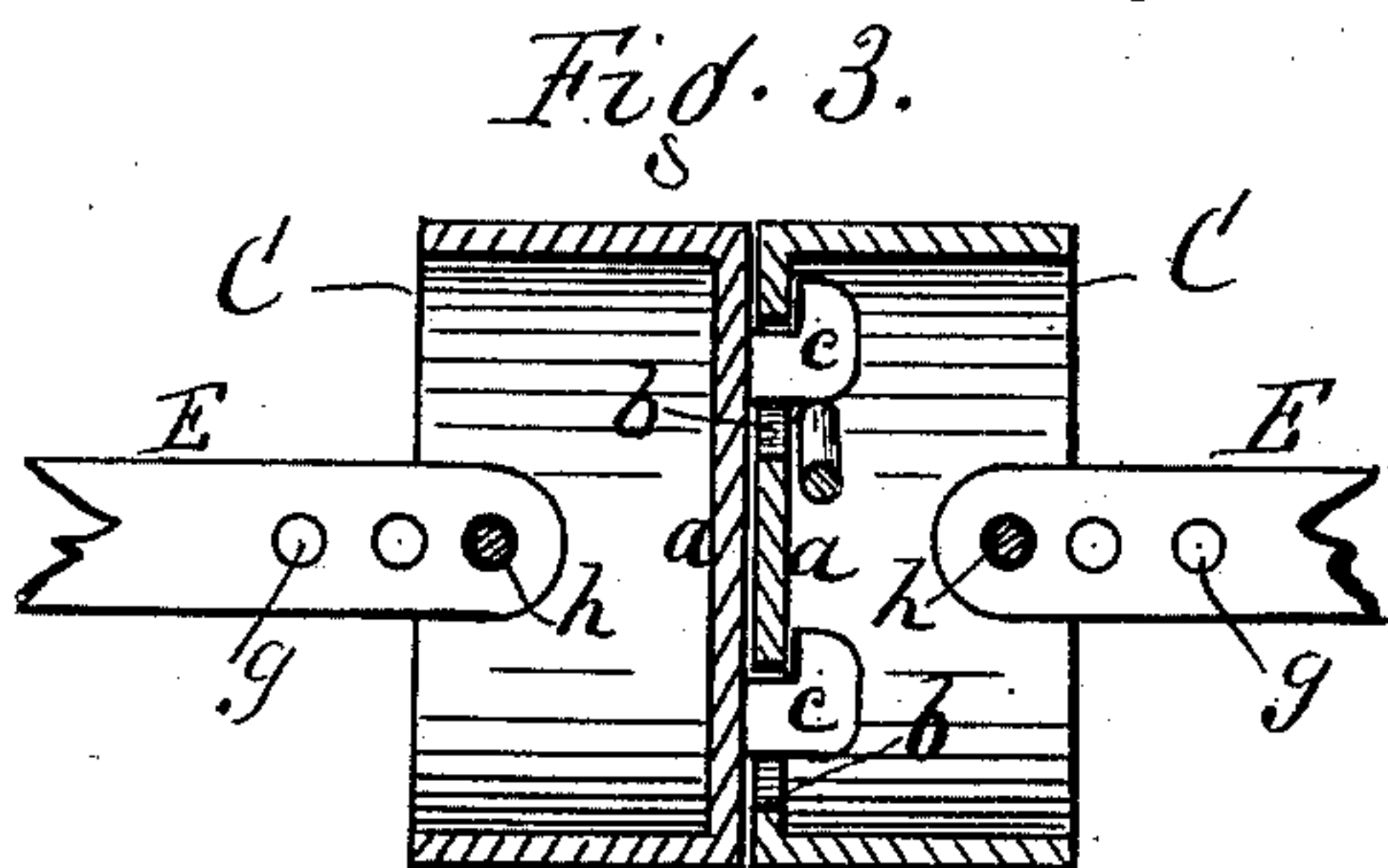
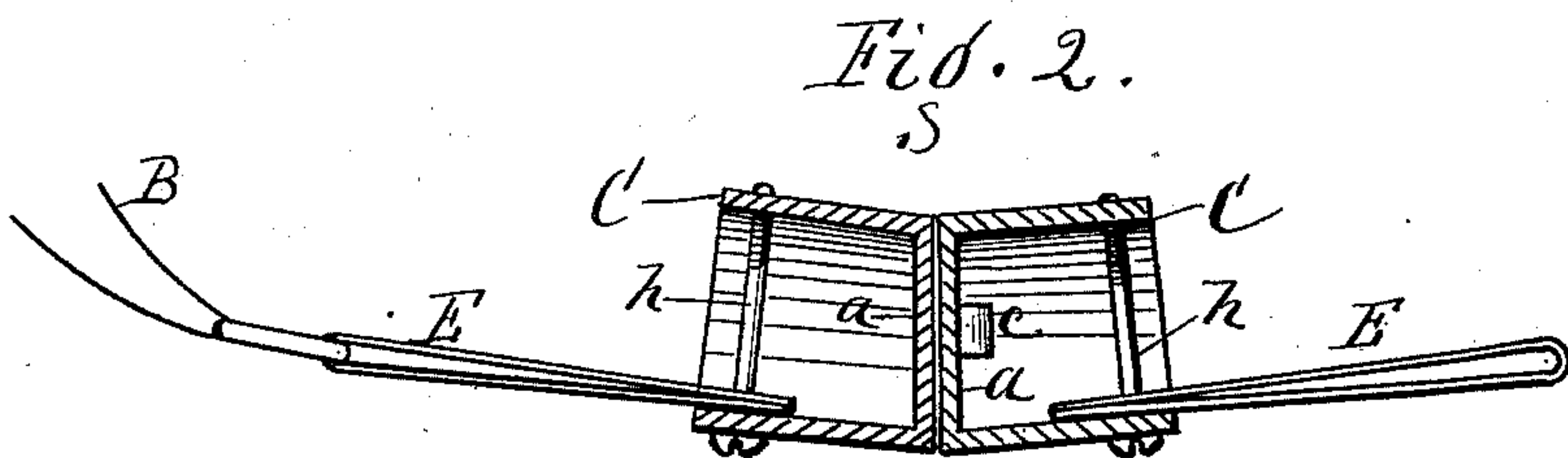
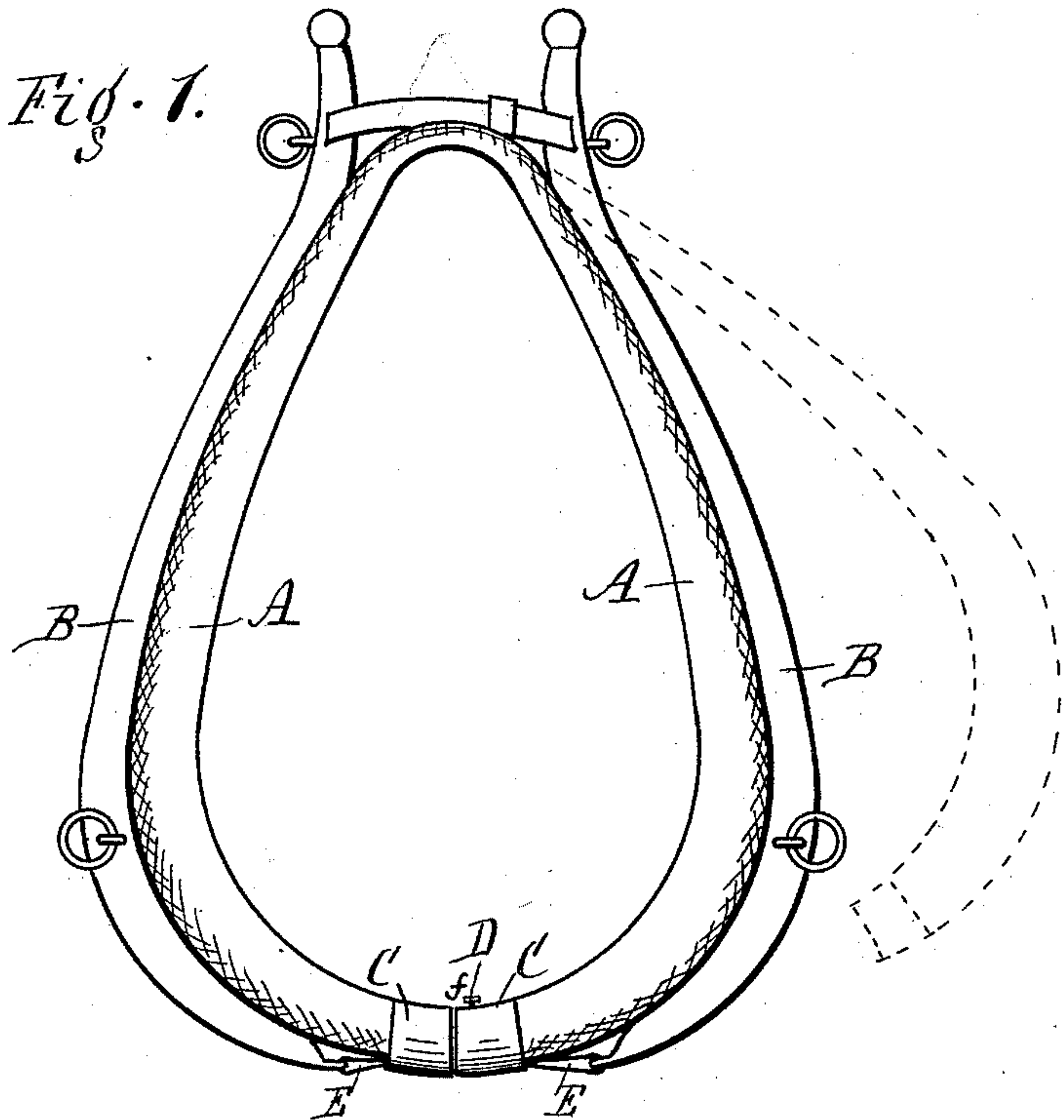


(No Model.)

D. STONE.  
HORSE COLLAR FASTENER.

No. 421,986.

Patented Feb. 25, 1890.



Attest.  
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L. E. Shaffer

Inventor.  
Draper Stone,  
per R. L. Osgood,  
att'y.

# UNITED STATES PATENT OFFICE.

DRAPER STONE, OF PITTSFORD, NEW YORK.

## HORSE-COLLAR FASTENER.

SPECIFICATION forming part of Letters Patent No. 421,986, dated February 25, 1890.

Application filed August 24, 1881. Serial No. 405,552. (No model.)

*To all whom it may concern:*

Be it known that I, DRAPER STONE, of Pittsford, Monroe county, New York, have invented a certain new and useful Improvement in Horse-Collars; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, in which—

Figure 1 is a front elevation of a collar, showing my improvement. Fig. 2 is a central vertical section of the coupling. Fig. 3 is a horizontal section. Fig. 4 is an end elevation.

My improvement relates to couplings for horse-collars which open in the center at the bottom of the collar and in which the hames are permanently attached to the collar, so that in opening and removing the collar the hames are removed with it.

The invention consists in the construction and arrangement hereinafter more fully described.

In the drawings, A A represent the two halves of an ordinary horse-collar, which is closed at the top, but open at the bottom.

B B are the hames, also of ordinary construction.

C C are two metallic socket-pieces forming the coupling, located at the bottom of the collar and attached on the two opposite sides. These couplings are formed hollow to fit on the ends of the collar, to which they are firmly secured. The inner adjoining ends of the couplings have thin webs or butments *a a* forming the surfaces which strike together. In one of these butments are made two openings *b b*, and in the other are two projecting right-angled hooks *c c*, coincident in position. The openings are of sufficient size to allow the hooks to enter bodily, and when the hooks are once entered a side movement carries the hooks under the edges of the openings, and this holds the coupling together.

D is a crank-shaped pin, which passes through holes in the sides of the socket C, the cranked end resting behind one of the hooks *c* when inserted and holding the same locked in place. The pin is held up behind

the hook by a spring *d*, and the pin has a head *f*, which projects above the socket a little distance, so that when the finger is pressed down upon it the cranked end will be forced down to release the hook. By this means the hooks are readily inserted and locked in place, and can be as readily disconnected.

E E are two metallic straps forming the connections between the hames and the coupling-sockets. They are made double, as shown, one end being looped into the eye of the hame and the other end being provided with a series of holes *g g*, through any one of which passes a screw *h*, which passes up through the coupling-socket and holds the strap in place. By this means it will be seen that each hame is attached to its socket by the strap and remains permanently with the same, so that when the couplings are disconnected to remove the collar the hames remain upon the collar. The hames may be taken up to fit smaller collars by removing the screws *h h* and inserting them in different holes in the straps. The straps forming the connections may be of different form from that shown and described, if desired, the object being to make a connection between the hames and coupling-sockets that can be taken up and let out at pleasure, and which will make the hames an attachment with the collar, so that all can be removed together.

I am aware that collars are known in which the lower ends of the collar are united by a coupling which can be disengaged to open the collar. I am also aware that collars are known in which hames connected with the collar have been coupled directly together without connecting with a coupling at the ends of the collar. The distinctive feature of my invention consists of a coupling connecting the ends of the collar, and straps extending from such couplings and attaching to the hames, so that both parts are attached together and open together.

Having thus described my invention, I claim—

In a horse-collar in which the hames are



permanently attached to the couplings of the collar, the combination of the two sockets C C, the metallic straps E E, connecting the hames with the sockets, the openings *b b* in  
5 one of the sockets, and the hooks *c c* in the other socket, the hooks entering the openings and being secured in place by a locking-pin, as set forth.

In witness whereof I have hereunto signed my name in the presence of two subscribing witnesses.

DRAPER STONE.

Witnesses:

R. F. OSGOOD,  
G. H. JONES.