

No. 690,622.

Patented Jan. 7, 1902.

E. SEYBOLD & C. E. MOUNTFORD.
HANDLE.

(Application filed June 22, 1901.)

(No Model.)

FIG. 1.

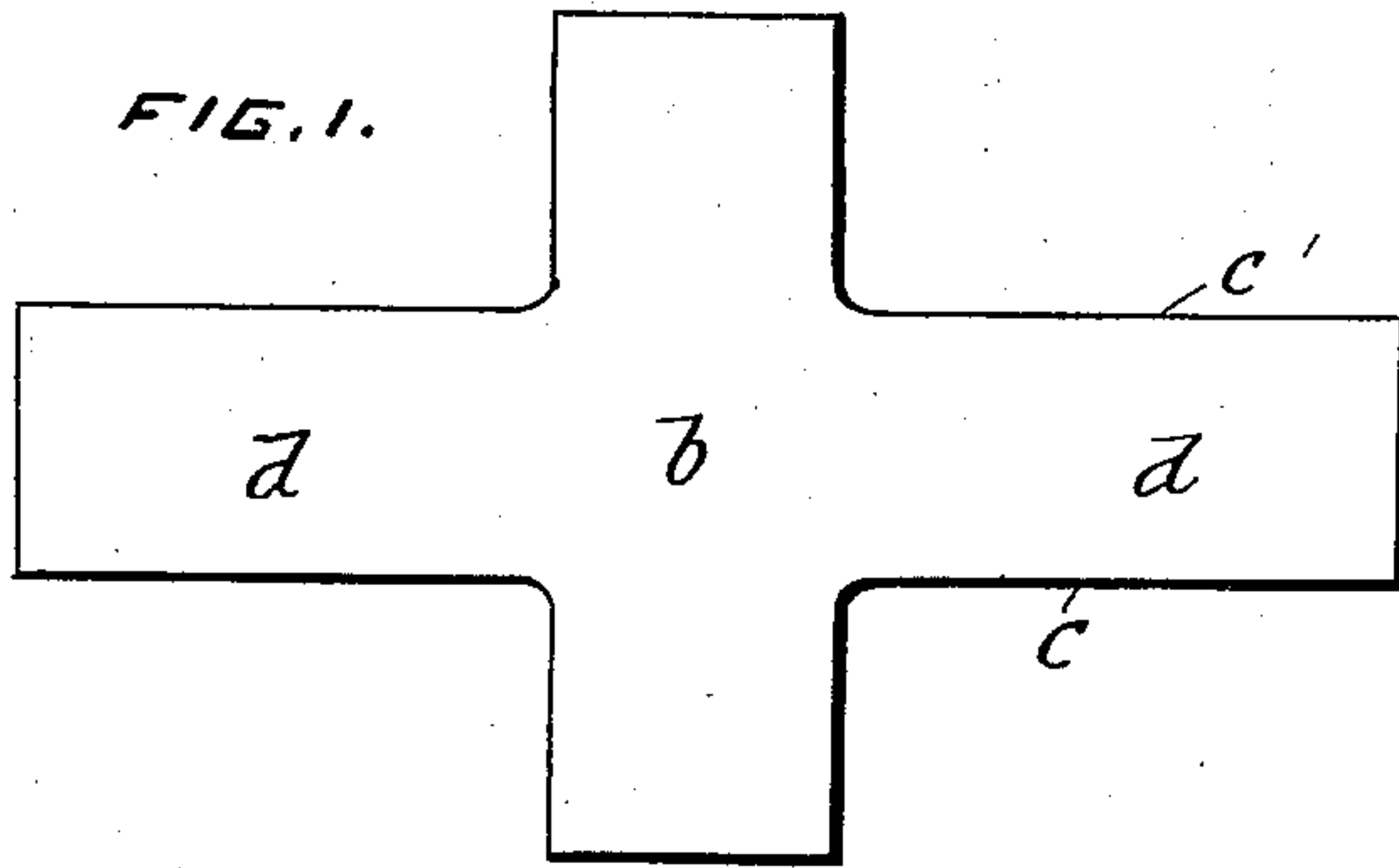


FIG. 2.

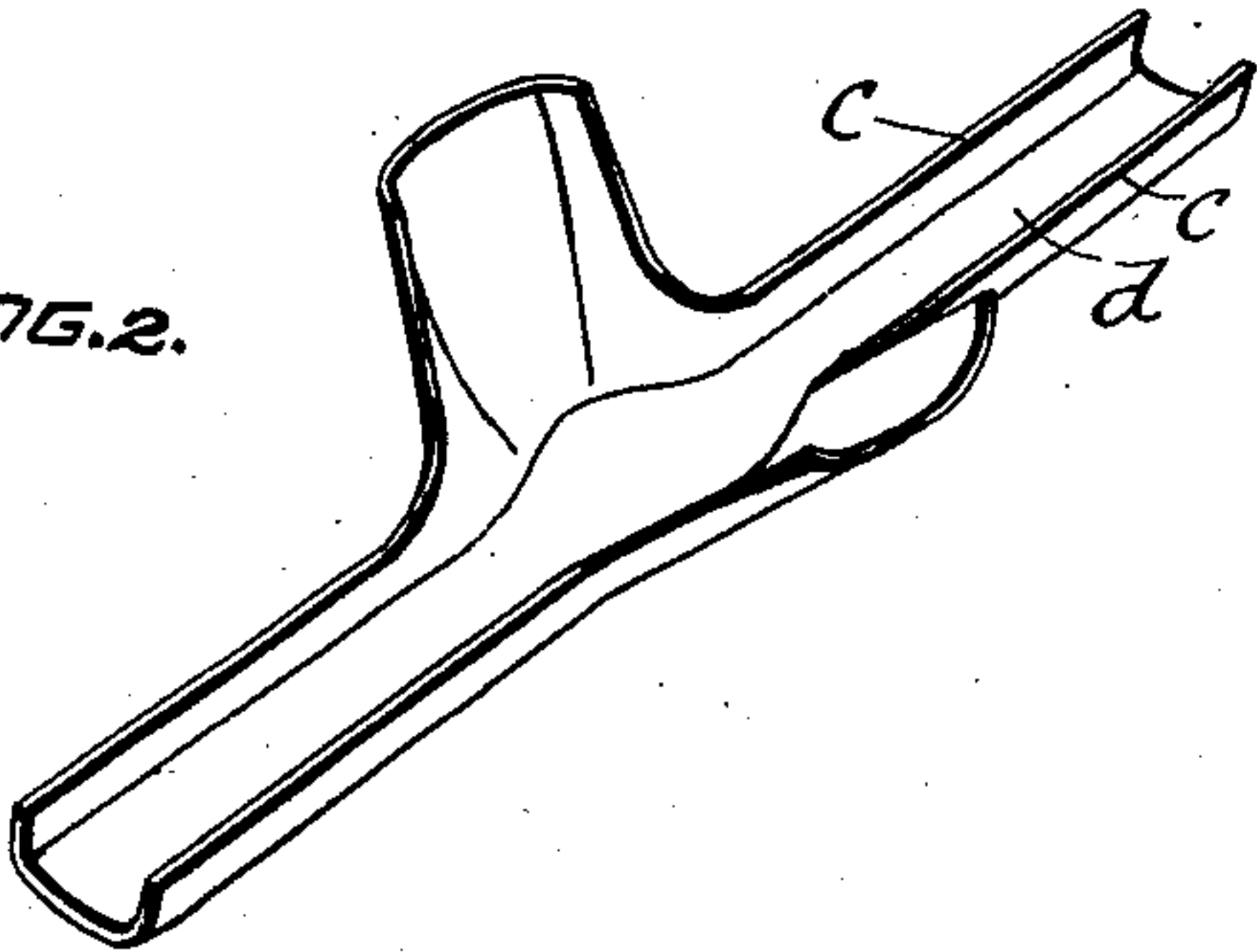


FIG. 3.

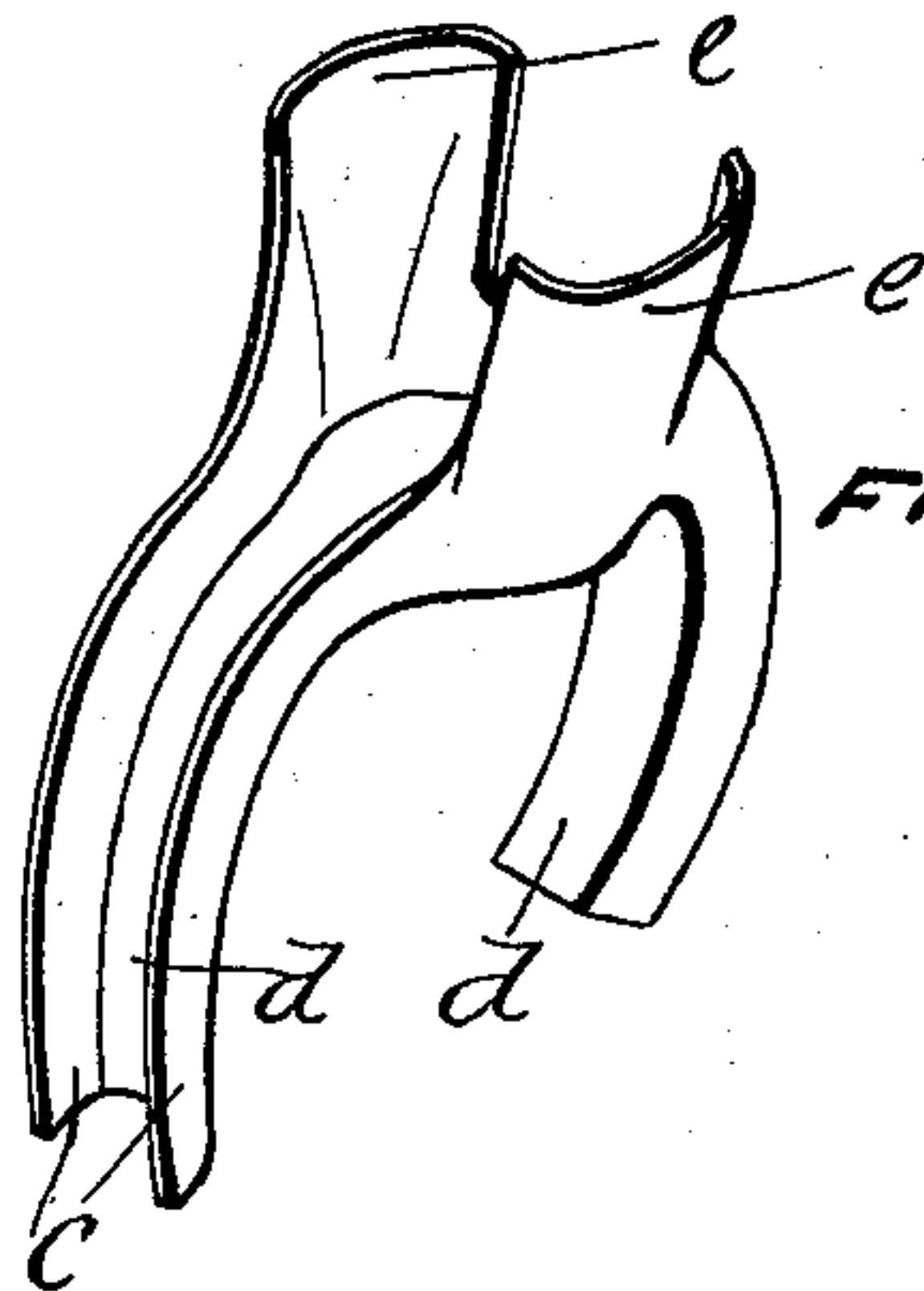


FIG. 4.

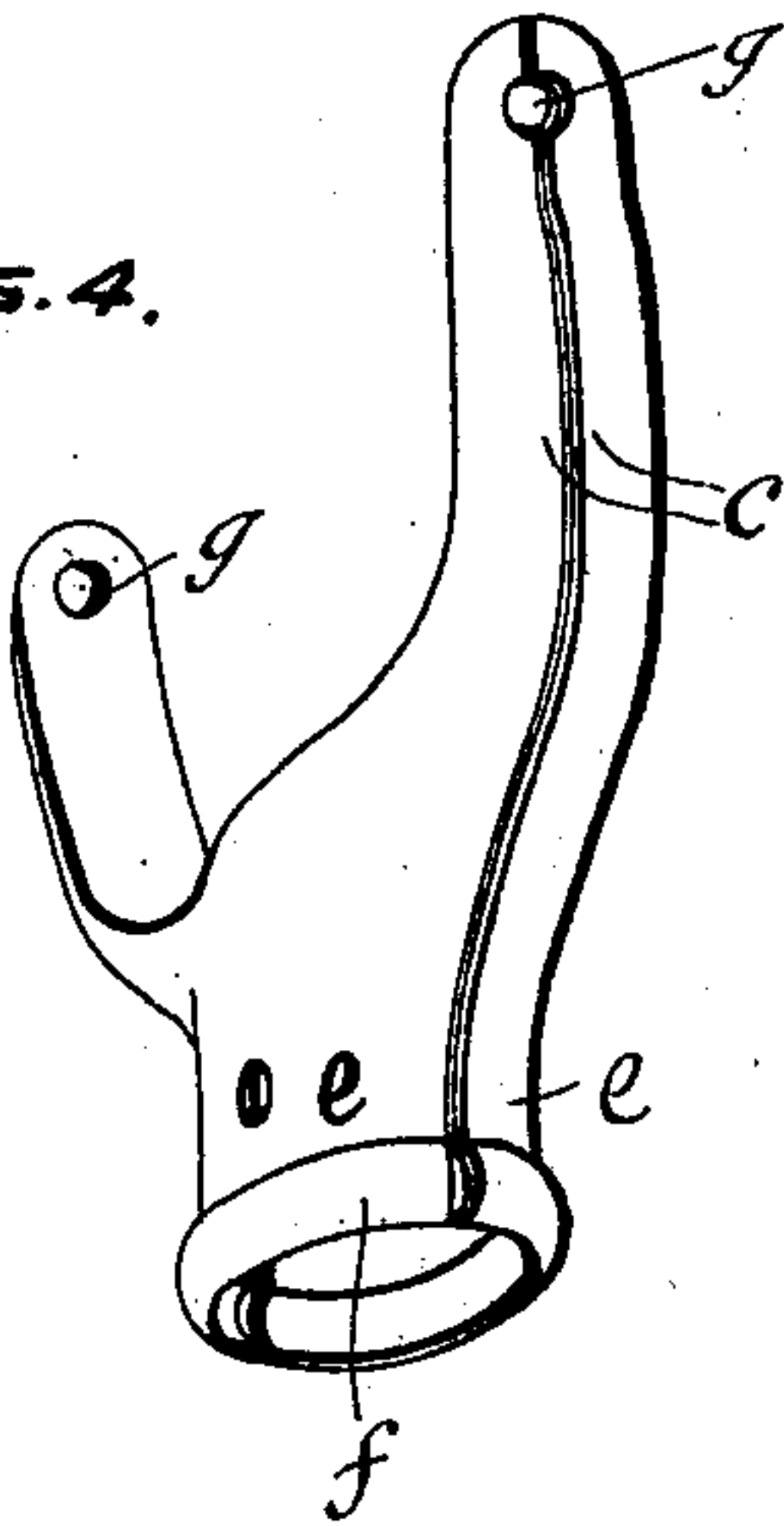
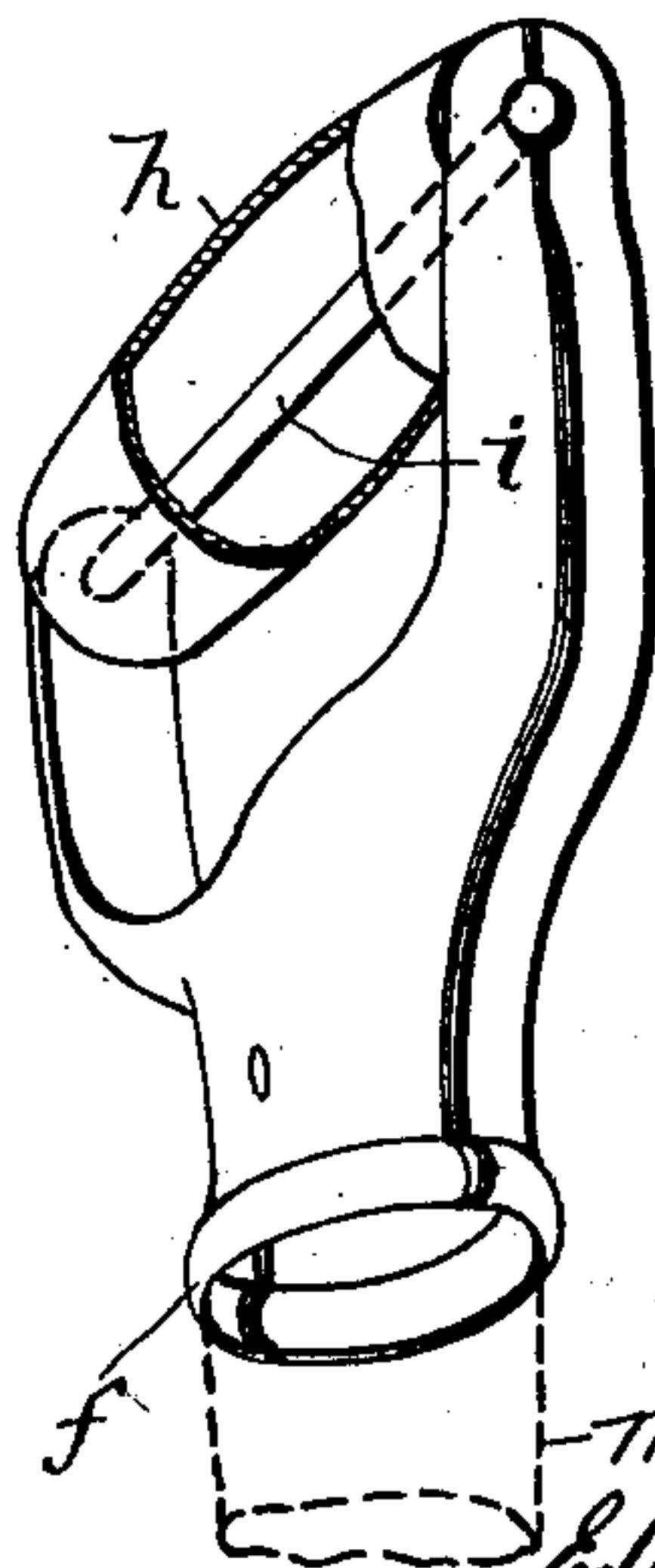


FIG. 5.



Witnesses
R. C. Zimmer
Attest
[Signature]

Edward Seybold,
Clarence E. Mountford
Inventors
By Their Attorney
[Signature]

UNITED STATES PATENT OFFICE.

EDWARD SEYBOLD AND CLARENCE ERNEST MOUNTFORD, OF OTTAWA, CANADA, ASSIGNORS TO THE ECLIPSE OFFICE FURNITURE COMPANY OF OTTAWA, LIMITED, OF OTTAWA, CANADA, A CORPORATION.

HANDLE.

SPECIFICATION forming part of Letters Patent No. 690,622, dated January 7, 1902.

Application filed June 22, 1901. Serial No. 65,638. (No model.)

To all whom it may concern:

Be it known that we, EDWARD SEYBOLD, manufacturer, and CLARENCE ERNEST MOUNTFORD, machinist, of the city of Ottawa, Province of Ontario, Canada, have invented certain new and useful Improvements in Handles; and we do hereby declare that the following is a full, clear, and exact description of the same.

10 This invention relates particularly to handles for shovels, pitchforks, or, in fact, in any connection where a strong and light handle is required; and the object of the invention is to enable a handle of this type to be
15 made from sheet metal and hollow.

The invention, broadly speaking, may be said to consist in forming the metal portion of a handle hollow to impart rigidity and lightness and of sheet metal formed to present the
20 required shape.

More specifically speaking, the invention may be said briefly to consist in producing a blank of sheet metal and forming from said blank by suitably bending same a hollow metallic forked frame in one piece and adapted to receive between its prongs and have connected thereto a cross-piece, thus constituting what is known in the trade as a "D-handle." For full comprehension, however, of our invention reference must be had to the accompanying drawings, wherein like symbols indicate the same parts, and in which—

Figure 1 is a perspective view of the improved blank. Fig. 2 is a perspective view of the blank after the first bending operation. Fig. 3 is a similar view of the blank after the second bending operation. Fig. 4 is a similar view of the blank after the third bending operation, the forked frame being completed and ready to receive the cross-piece; and Fig. 5 is a perspective view of the complete handle.

In constructing a handle-frame according to this invention the blank *b* is struck from sheet metal in any well-known and preferred manner and of the shape of a cross, with its cross-arm crossing its longitudinal arm about midway of the length of the latter. (See Fig. 1.) This blank is by suitable dies and in one

operation first formed to have the side edges *c* of its longitudinal arm *d* extend at approximately right angles thereto and with the ends of its cross-arm concave and each extending at an angle to the same side of the longitudinal arm *d* as that from which the sides *c* extend. (See Fig. 2.) The second forming operation downwardly curves the ends of the longitudinal arm *d* and simultaneously causes the concave ends *e* of the cross-arm to extend at approximately right angles to the middle portion of the longitudinal arm. (See Fig. 3.) The final forming operation causes the edges *c* to meet and abut against one another and the side edges of the ends *e* of the cross-arm to do the same and a bead *f* to be formed at the lower end of the shank-socket constituted by said ends *e*, the ends of the longitudinal arm *d* being punched, as at *g*. (See Fig. 4.) The D-handle is then completed, preferably by mounting a metallic tubular length *h* upon a spindle *i* and rigidly securing the ends of said spindle in the perforations *g* of the handle-frame, while the socket may be secured by a pin or screw to the shank *m* of a shovel, pitchfork, draw-rod of any kind, or the like necessary to be manually operated.

We have illustrated and fully described what we consider the preferred method of forming our improved handle in order that our invention may be thoroughly understood; but our improved handle may, if desired, be made from more than one piece of sheet metal or a wooden cross-piece instead of the metallic tubular length *h* used and other changes made within the spirit of our invention.

What we claim is as follows:

1. A D-handle frame consisting of a single piece of sheet metal bent in the form of a fork with hollow prongs and the shank whereof consists of two resilient semicircular portions detached from and abutting against one another, substantially as described and for the purpose set forth.

2. A D-handle frame consisting of a single piece of sheet metal bent in the form of a fork the shank whereof consists of two resilient semicircular portions detached from and abutting against one another and having an outwardly-projecting bead encircling said

shank at the end thereof, substantially as described and for the purpose set forth.

3. A D-handle frame consisting of a single piece of sheet metal bent in the form of a fork
5 the ends whereof consist of said single piece of sheet metal bent upon itself, the shank of said fork consisting of two resilient semicircular portions detached from and abutting against one another, substantially as described and for the purpose set forth.
10

4. A D-handle frame consisting of a single piece of sheet metal bent in the form of a fork the ends whereof consist of said single piece

of sheet metal bent upon itself, the shank of said fork consisting of two resilient semicircular portions detached from and abutting against one another and having an outwardly-projecting bead encircling said shank at the end thereof, substantially as described. 15

In testimony whereof we have affixed our signatures in presence of two witnesses. 20

EDWARD SEYBOLD.

CLARENCE ERNEST MOUNTFORD.

Witnesses:

JAMES GIBSON,

WILLIAM HARPER CONNOR.