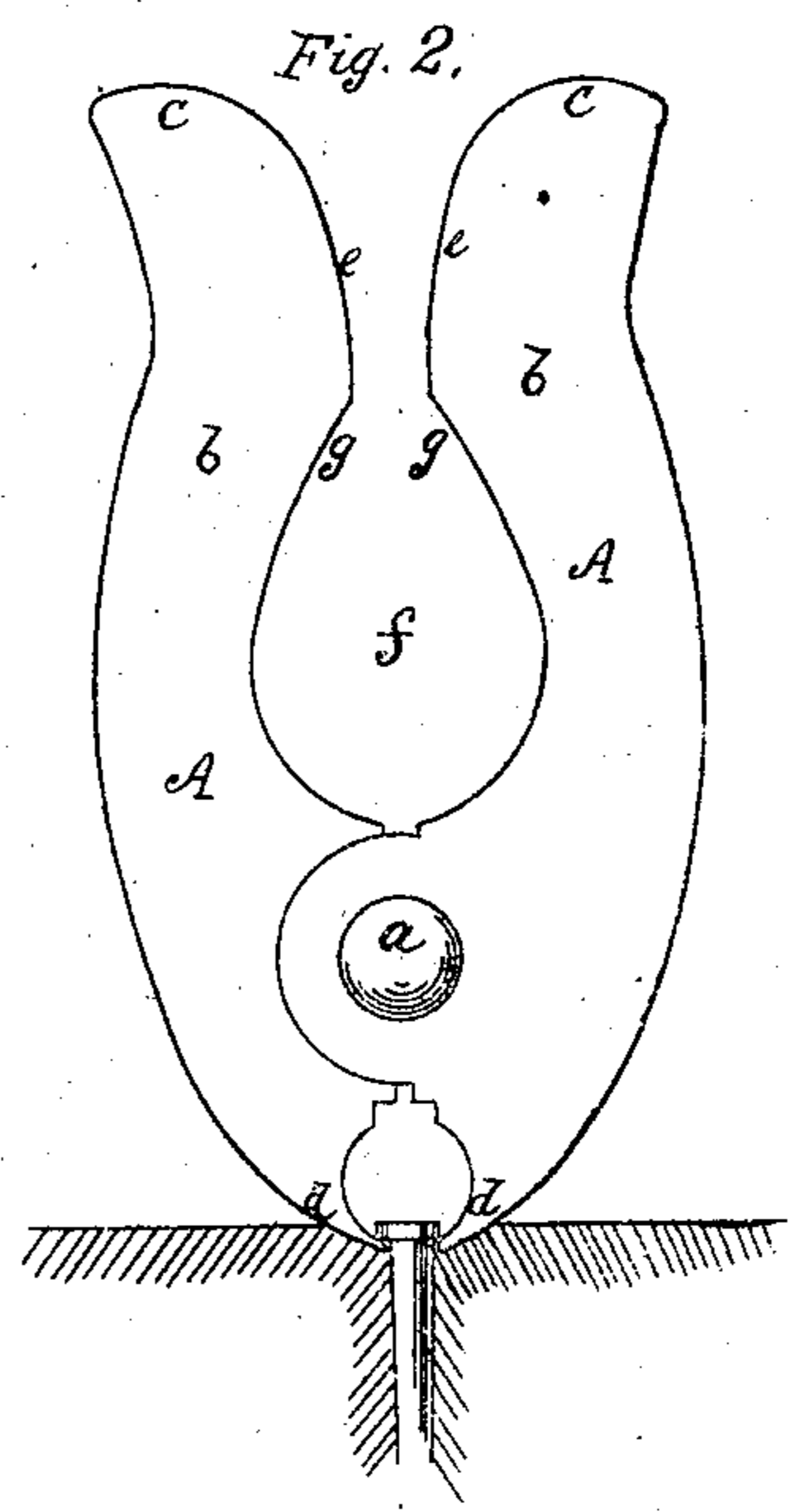
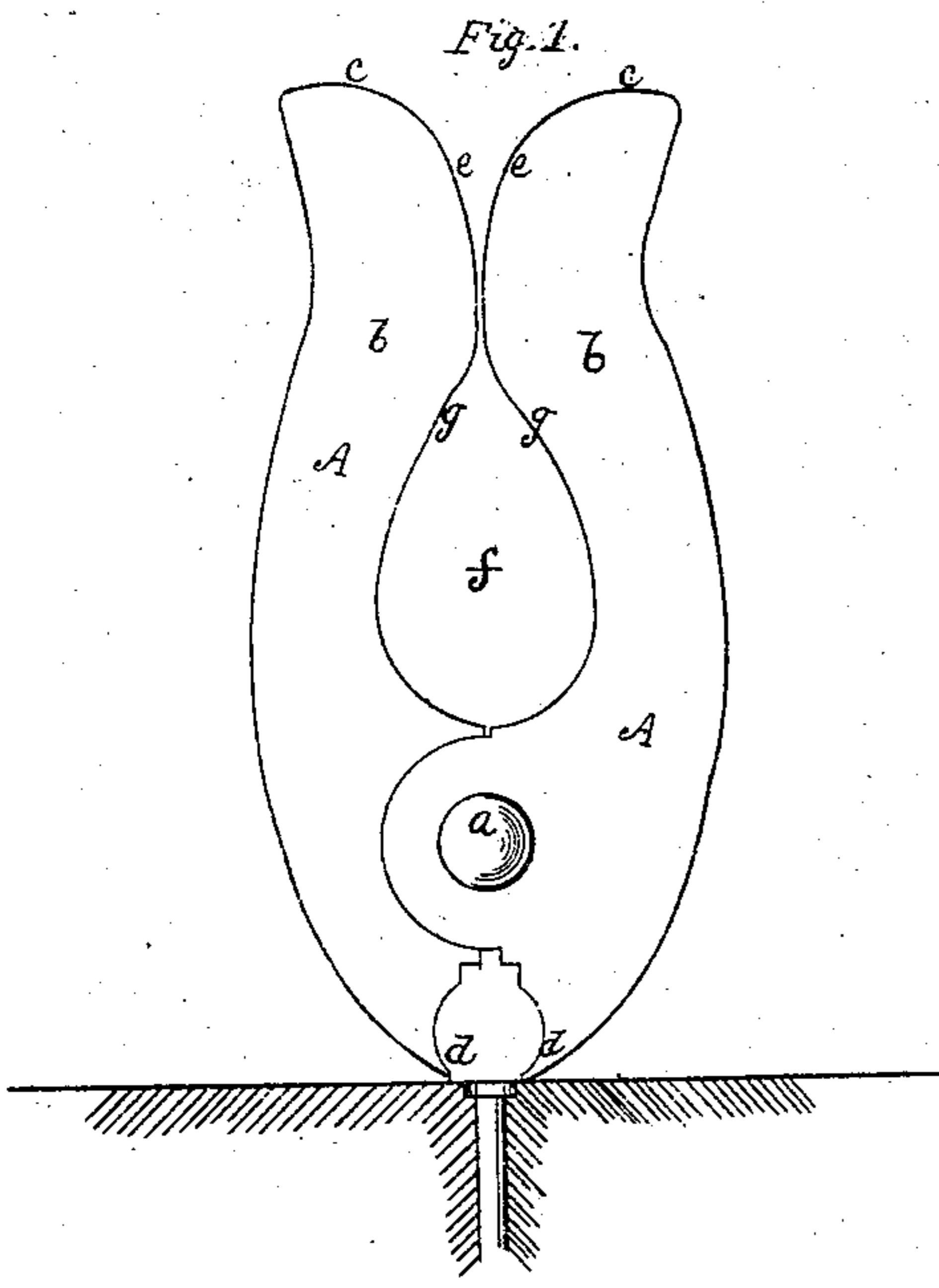
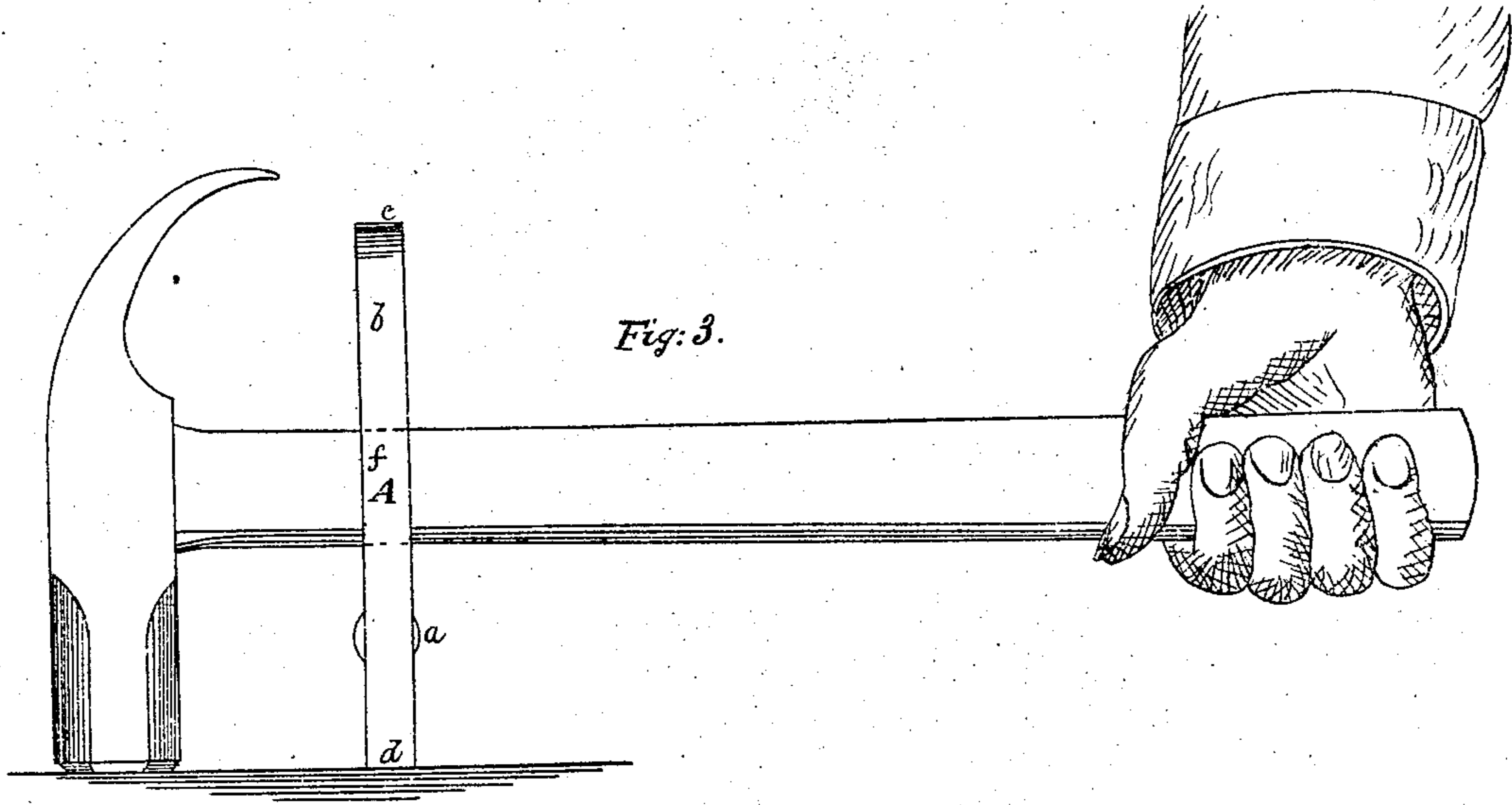


H. W. Holly.  
Drawing Nails.

N<sup>o</sup> 73330

Patented Jan. 14, 1868.



Witnesses:

J. M. Coombs  
Laurence Holmes

Inventor:

H. W. Holly.

# United States Patent Office.

HENRY W. HOLLY, OF NORWICH, CONNECTICUT.

*Letters Patent No. 73,330, dated January 14, 1868.*

## IMPROVEMENT IN IMPLEMENTS FOR DRAWING NAILS.

*The Schedule referred to in these Letters Patent and making part of the same.*

### TO ALL WHOM IT MAY CONCERN:

Be it known that I, HENRY W. HOLLY, of Norwich, in the county of New London, and State of Connecticut, have invented a certain new and useful Improvement on Implements for Drawing Nails, of which the following is a full, clear, and exact description, reference being had to the accompanying drawing, forming part of this specification, and in which—

Figure 1 represents a side view of my improved implement, with the gripping ends of its jaws in an open condition as they may stand prior to being driven into the wood over the head of the nail.

Figure 2, a similar view of the same, with the gripping ends in a closed condition, as they would stand in their hold on the nail after being driven into the wood, and on pressure being applied to draw the nail; and

Figure 3, an edge view of the implement, showing the manner of its use in drawing a nail by the application of a hand-hammer to it as a lever.

Like letters indicate like parts in all the figures.

Tools for drawing nails from goods, boxes, and other objects or work, without material injury to the outer surface of the wood, and with but little inconvenience or labor, have been variously constructed. One desirable feature of such tools is some such attachment or construction of one of their parts as will enable them to indent the wood round the head of the nail, for the pincers or gripping ends of the implement to enter the wood, and thereby avoid the use of a separate punch or other tool for performing such work in advance. When such attachment or construction requires the reversal or removal of the implement to accomplish both functions of indenting and drawing, the implement then partakes of the character of separate tools for the single purpose of extracting the nail. This my improvement avoids, by making the grippers or nippers also act as the indenters, without removal of the implement to effect both functions; and it also has for another of its objects suitable facility for driving, by the action of a single blow, its grippers into the wood to accomplish both acts, and, it may be, by a further blow, to tighten the grasp on the nail; also, by the mere introduction through the tool of the handle of the hammer used in dealing the blow, or of any other lever having, in such application of force to pry up the nail, a tightening tendency in the clutch of the grippers secured to it.

The nature of my invention to produce these several results consists in a novel construction of jaws pivoted to each other, the upper or rear ends of the jaws closing to open the opposite or indenting and gripping ends, and presenting a suitable surface or surfaces for striking them, say, with the flat side of a hammer, to project the forward ends, which are of pincer formation, into the wood round the head of the nail, and a closing action of the same round or on the shank of the nail; also, which rear ends or arms of the jaws are of a double wedge-like form, to secure the gripe and lift on the nail in the manner described; such constructed jaws constituting a more than ordinary compact, light, and cheap implement for the purpose named.

Referring to the accompanying drawing, A A represent jaws pivoted as at *a*, the upper ends or arms *b* being spread out, flattened, or rounded at their tops, *c*, so that when closed and struck, say, with the flat of a hammer, the opposite griper or sharp pincer-formed ends, *d*, arranged in using the tool to lie outside the head of the nail, will not only be projected into the wood to form the necessary indentation, but will have a closing action given them, causing them to bear towards or against the shank of the nail, which latter action may be yet further increased by striking or pressing, say, with the inner end of the handle of the hammer used in dealing the blow, in between inclined planes or curved surfaces, *e*, given the upper or outer end portion of the arms *b*, while the grasp of the grippers is yet further tightened or secured, in extracting the nail, by the introduction of the hammer-handle, or any other lever, through the opening or space *f*, between lower or inner portions of the arms *b*, and bearing or pressure of said handle or lever, in effecting the lift of the tool to extract the nail, against reversely-shaped inclines or wedge-formations *g*, below or within the upper inclined portions *e*. If desirable the jaws may be furnished with a spring to throw and keep their gripping ends closed, while pressure of the hand on the upper or opposite arms, in holding the tool, may be used to open the grippers.

What I claim as my invention, and desire to secure by Letters Patent, is—

The jaws A A, constructed to open and close as described, and with their upper ends or arms having converging sides, *g*, forming an opening, *f*, between them, so that by lifting on the same through a lever inserted as specified, to extract the nail, the gripe of the nippers is tightened on the latter in the manner substantially as set forth.

Witnesses:

J. W. COOMBS,  
G. W. REED.

HENRY W. HOLLY.