N. KIESEL.

ADJUSTABLE CUTTING AND FORMING IMPLEMENT.

APPLICATION FILED SEPT. 3, 1907.

984,678.

Patented Feb. 21, 1911.

Fig. 1.

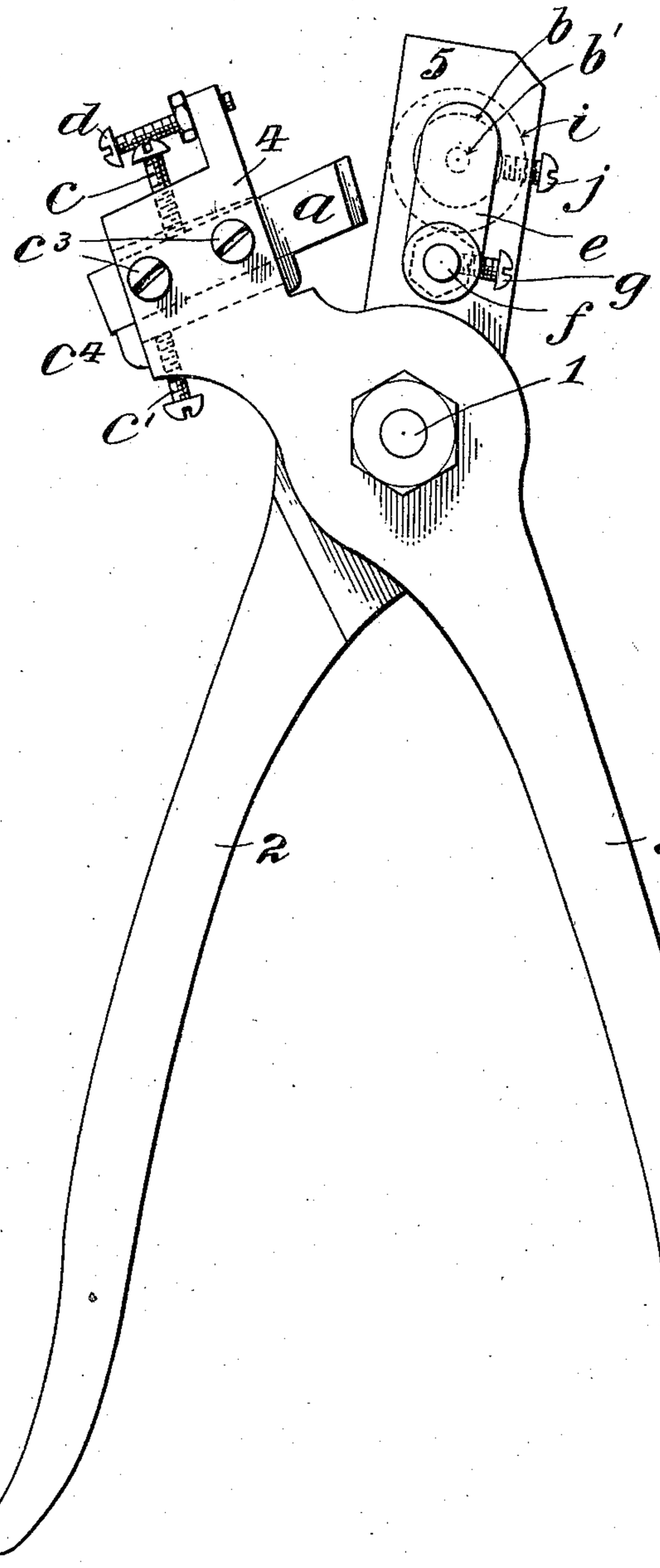
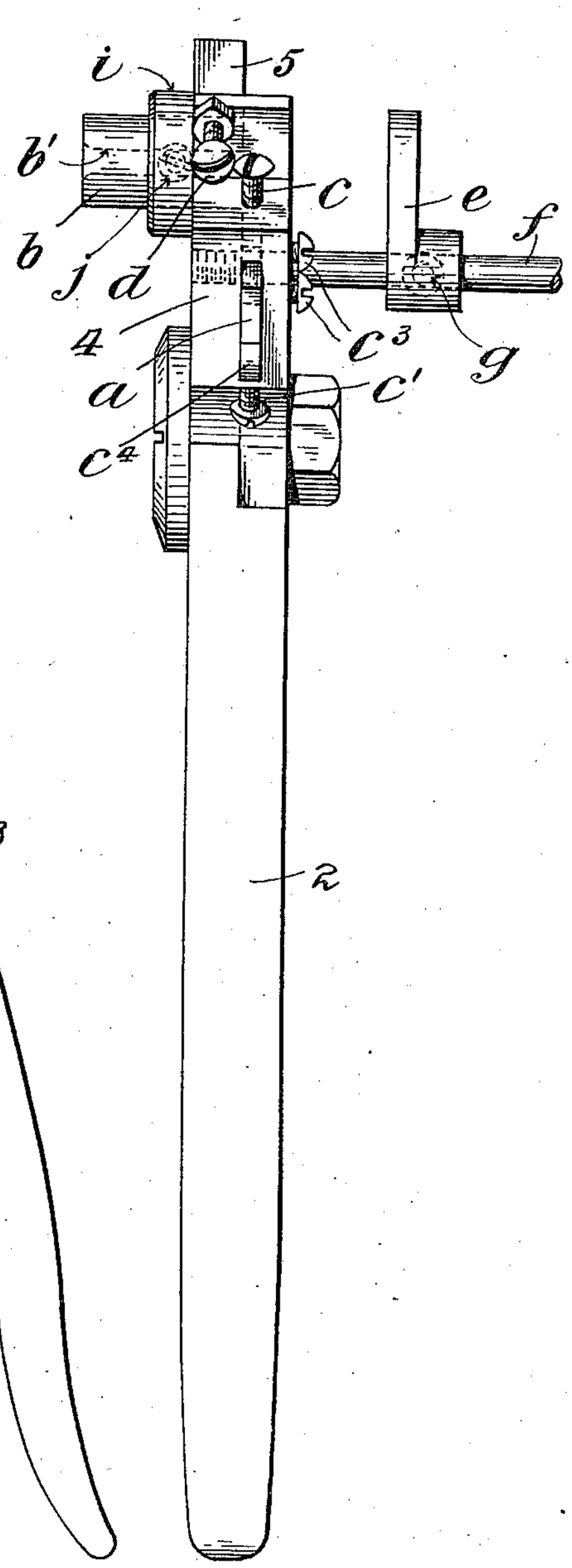


Fig. 2.



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ADJUSTABLE CUTTING AND FORMING IMPLEMENT.

984,678. Specification of Letters Patent. Patented Feb. 21, 1911.

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To all whom it may concern:

Be it known that I, NICHOLAS KIESEL, a citizen of the United States, residing in the borough of the Bronx of the city of New York, in the State of New York, have invented certain new and useful Improvements in Adjustable Cutting and Forming Implements, of which the following is a specification, reference being had to the accompanying drawings, forming a part hereof.

My invention relates particularly to improvements in tools for cutting, reaming or marking wire and other small articles of similar character and the invention consists in the new and novel features of construction and combinations of parts hereinafter set forth and claimed.

Referring to the drawings, Figure 1 represents a plan view of my improved cutting tool in its open or non-operative position. Fig. 2 represents a side elevation of the cutting tool.

The jaws of the implement are pivoted together in any suitable manner as by the pin 1 and are operated by the handles 2 and 3. The jaw 4 preferably carries the knife or tool *a* and the jaw 5 carries a bushing or holding device *b* which is provided with a central perforation to receive the wire or article to be cut or otherwise operated upon. The jaw 4 is formed with a transverse opening which provides a seat or socket for the cutter or former, for example the knife *a*. Said knife is narrower than the socket and the plane passing through its cutting edge is adjustable with relation to the wire to be operated upon by means of adjusting screws *c* and *c'*. Said screws are arranged to engage opposite edges of the knife and so that one of them shall engage nearer the cutting edge than the other, thereby permitting one of said adjusting screws to form a fulcrum for the other whereby a very accurate adjustment of the cutting edge may be obtained. The knife is held against longitudinal movement by any suitable means as the screws c^3 which pass through the side of the jaw 4 and engage the side of the knife. Preferably the socket is large enough to receive a gib or key c^4 between the edge of the knife and one of the adjusting screws. The movement of the cutting jaw is limited and controlled by a suitable set screw *d* whereby the depth of the cut may be regulated independently of the longitudinal movement of the knife itself.

Secured to the holding jaw 5 is a gage *f* which preferably is screwed into a tapped recess provided therefor in the side of the jaw. An adjustable stop *e* is mounted upon this gage rod which projects upwardly a sufficient distance therefrom to come opposite the perforation provided in the bushing *b* and thus engages with and limits the movement of the wire being operated upon. Said stop is held in its adjusted position by any suitable means as a screw *g*.

In order to hold the bushing *b* against movement, the holding jaw 5 is preferably provided with an annular flange *i* which forms a socket for the bushing *b*. A set screw *j* tapped through the flange *i* provides additional means for holding the bushing *b* against displacement.

In the operation of the tool the knife *a* is first adjusted by means of the screws *c*, *c'* and c^3 until its cutting edge is arranged at the desired angle to the periphery of the wire to be operated upon. The stop *e* is thereupon placed so that the wire shall be cut or operated upon in the desired lengths. The wire itself is guided into the bushing *b* which preferably has its central perforation reamed out as at *b'* to guide the wire as it is fed forward. The wire may be manipulated in any suitable manner by hand or by a lathe. The depth of the cut may be further regulated from time to time by the adjusting screw *d* without resetting the knife. It is obvious that the bushing *b* may be removed and other bushings having perforations of varying diameters may be inserted for the purpose of operating upon wires of different sizes.

This implement is especially adapted for lathe cutters and formers, and by their use the article operated upon may be cut or formed in any desired manner. An accurate adjustment of the cutting edge or operative face with relation to the article to be cut or formed may be readily obtained and different cutters, formers or knives may be quickly substituted one for the other.

Various modifications within the skill of the mechanic may be made in the construc-

tion herein shown without departing from the invention provided the means set forth in the following claims be employed.

I claim as my invention:—

1. An implement comprising movable jaws pivoted to each other, a tool secured in one of said jaws and movable longitudinally and transversely therein, means for adjusting the operative face of said tool at different angles in the same plane and separate means for locking said tool in its adjusted position, substantially as described.

2. An implement comprising movable jaws pivoted to each other, a tool secured in one of said jaws and movable thereon, screws engaging opposite edges of said tool for adjusting the operative face thereof at different angles in the same plane, and separate means for locking said tool in its adjusted position.

3. An implement comprising two jaws pivoted to each other, one of said jaws having an opening forming a recess for the tool and the other jaw having an opening provided with a bushing to receive the article to be operated upon, means mounted on the tool carrying jaw for adjusting the operative face of the tool at different angles in the same plane and means for holding said tool and bushing in their adjusted positions.

4. An implement comprising two jaws, one of said jaws having a tool secured thereto, screws in said jaw engaging the tool to adjust the operative face thereof, said screws being arranged so that one of said screws shall form the fulcrum for the other, substantially as described.

5. An implement comprising two jaws pivoted to each other, one of said jaws being provided with a knife adjustable in relation thereto, means on said jaw for adjusting the cutting edge of said knife at different angles in the same plane, a bushing removably secured to the other jaw to receive the article to be operated upon, a gage rod provided with a stop secured in said holding jaw, and means mounted in the end of one of said jaws for limiting the movement of the jaws toward each other, substantially as described.

6. An implement comprising movable handles provided with jaws pivoted to each other, one of said jaws being provided with an adjustable tool, and the other jaw being provided with a removable holding device and independent means for fixing said tool and holding device in their adjusted positions.

7. An implement comprising two jaws pivoted to each other, one of said jaws having an opening therethrough, a knife secured in said opening and a gib engaging the knife, an adjusting screw engaging one edge of the knife, an adjusting screw engaging the gib, and separate screws engaging the face of the knife to hold the same in its adjusted position, substantially as described.

This specification signed and witnessed this 21st day of August A. D., 1907.

NICHOLAS KIESEL.

In the presence of—
MARJORIE ROLLINS,
AMBROSE L. O'SHEA.