

No. 836,700.

PATENTED NOV. 27, 1906.

F. G. OLDENBURG.
PUNCHING MACHINE.
APPLICATION FILED OCT. 13, 1905.

Fig. 1.

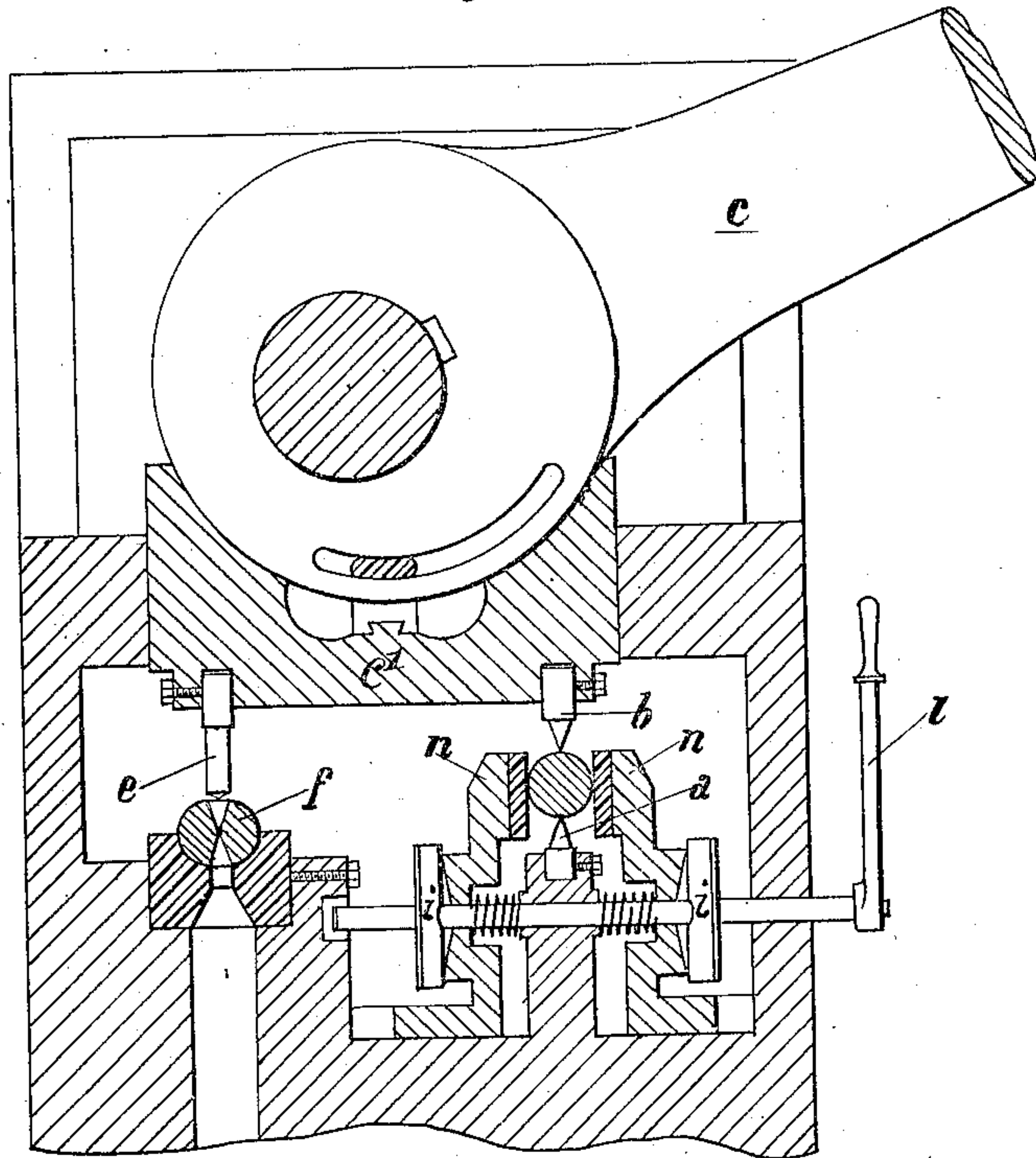
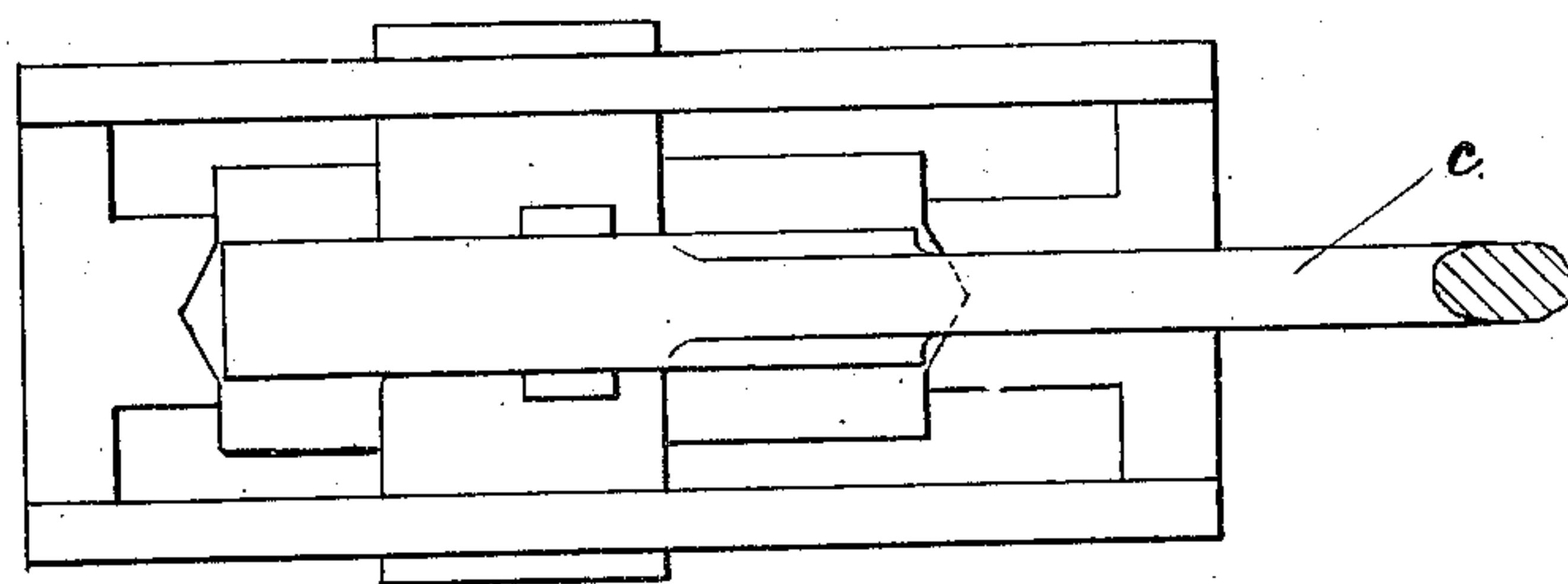


Fig. 2.



Witnesses:

Wilhelm Klink.

Reinhold Dreesen.

Inventor:

Franz Georg Oldenburg

UNITED STATES PATENT OFFICE.

FRANZ GEORG OLDENBURG, OF ALTONA, GERMANY.

PUNCHING-MACHINE.

No. 836 700.

Specification of Letters Patent.

Patented Nov. 27, 1906.

Application filed October 13, 1905. Serial No. 282,564.

To all whom it may concern:

Be it known that I, FRANZ GEORG OLDENBURG, a subject of the German Emperor, and a resident of No. 12 Eimsbüttelerstrasse, Altona, Germany, have invented certain new and useful Improvements in a Punching-Machine, of which the following is a specification.

The invention relates to a punching-machine for punching angular or round holes in angular, round, or plate iron or the like, which permits the execution of such work in two operations and to punch holes of less diameter than the thickness of the material more effectually and neatly unlike any such machines in existence.

The annexed drawings represent a form of construction of the machine above mentioned.

Figure 1 shows the longitudinal section of the machine, and Fig. 2 the top view.

The punches *a* and *b* (seen to the right of the frame) are conically pointed and face each other. The exchangeable punch *b* is attached to a sliding block worked by the eccentric lever *c*, whereon the points of both punches closely meet each other. For holding and keeping in middle the material to be punched—as, for instance, the two vise-like grippers *n*, which are acted on by the lever *l* will serve. For this purpose instead of a tightening-screw with right or left threads a stretching and closing arrangement may be advantageously used, which consists of two roof-shaped plates *i*, which catch the two blocks *n*, having saddle-shaped grooves, and the former of which when turned cause the latter two blocks to draw back, forced by springs. The punch *e* (shown to the left of the machine) is the finishing-tool, under which is an opening to let punched material fall off, and all are as hereunder set forth.

When the machine is in operation, the round or angular bar which is to be punched is firmly held by the above-mentioned stretching or closing arrangement *n i l*. The lever *c* is drawn downward, causing the compression of the punches *b* over *a* from the op-

posite side into the bar in such a manner that each one of the punches penetrates half the distance of the said bar. When the bar thus punched is placed the second time under the punch *e*, situated at the left, this makes the hole through clearly and in the enlarged size, as was intended.

I claim—

1. Punching-machine for punching angular or round holes in angular, round or plate iron, which need punching with less sized holes than the thickness of the material comprising, in combination, a frame, an eccentric lever in said frame working a sliding block, two exchangeable punches on said sliding block, attached with studs, another punch rigidly fastened on the lower part of the frame and lying opposite to one on the said sliding block, the lower part of the frame having a hole opposite to the other punch on the said sliding block, means for securing and keeping in middle the iron to be punched, substantially as shown and described.

2. Punching-machine for punching angular or round holes in angular, round or plate iron, which need punching with less sized holes than the thickness of the material comprising, in combination, a frame, an eccentric lever in said frame working a sliding block, two exchangeable punches on said sliding block, attached with studs, another punch rigidly fastened on the lower part of the frame and lying opposite to one on the said sliding block, the lower part of the frame having a hole opposite the other punch on the sliding block, two vise-like grippers with suitable arrangement to hold the material in position, substantially as shown and described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

FRANZ GEORG OLDENBURG.

Witnesses:

WILHELM KLINK,
ROLI DRESEN.