No. 717,261. Patented Dec. 30, 1902.

F. G. OLDENBURG.

TOOL FOR FIXING IRON RAILINGS.

(Application filed June 20, 1902.)

(No Model.) 2 Sheets—Sheet 1.

Fig 1.

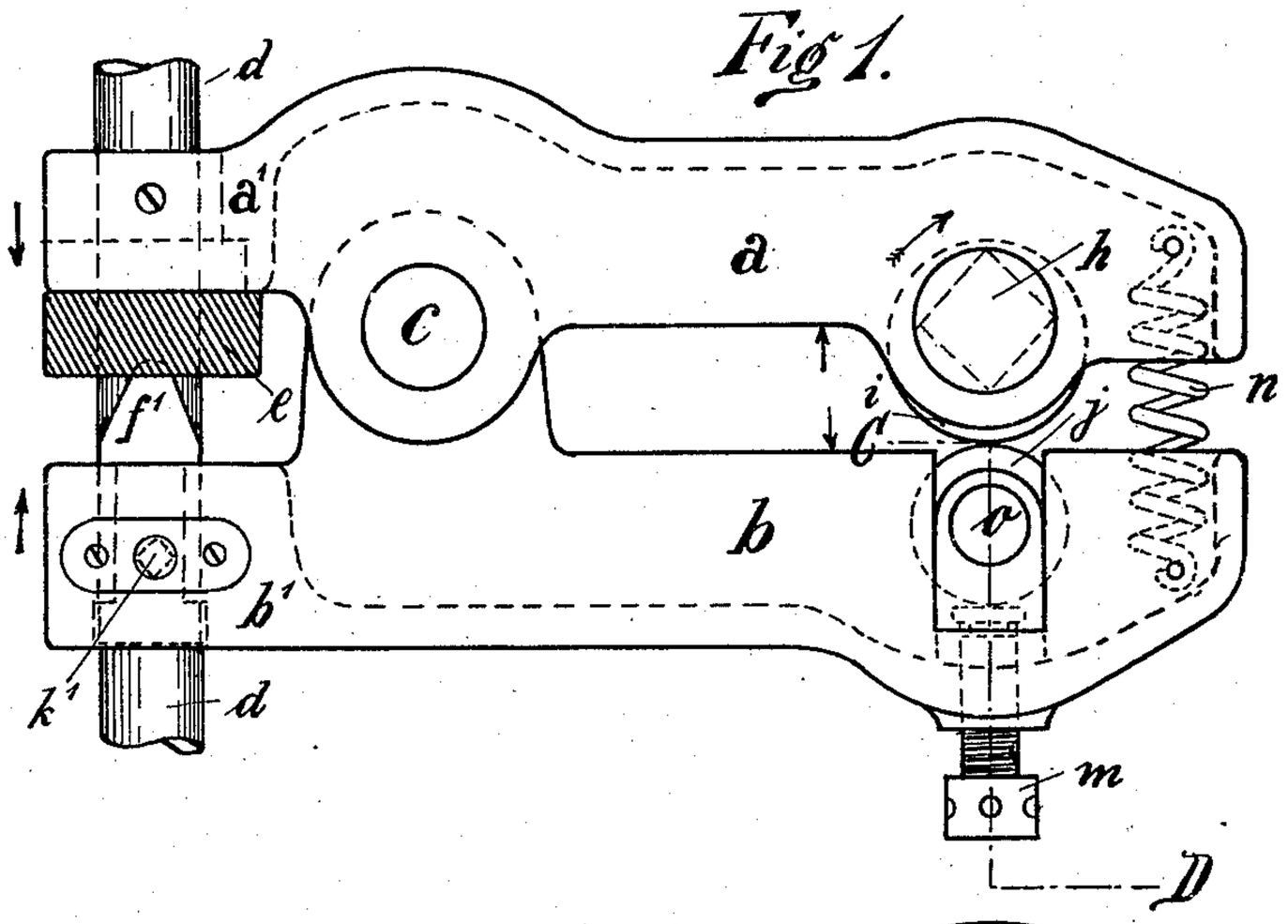


Fig 2.

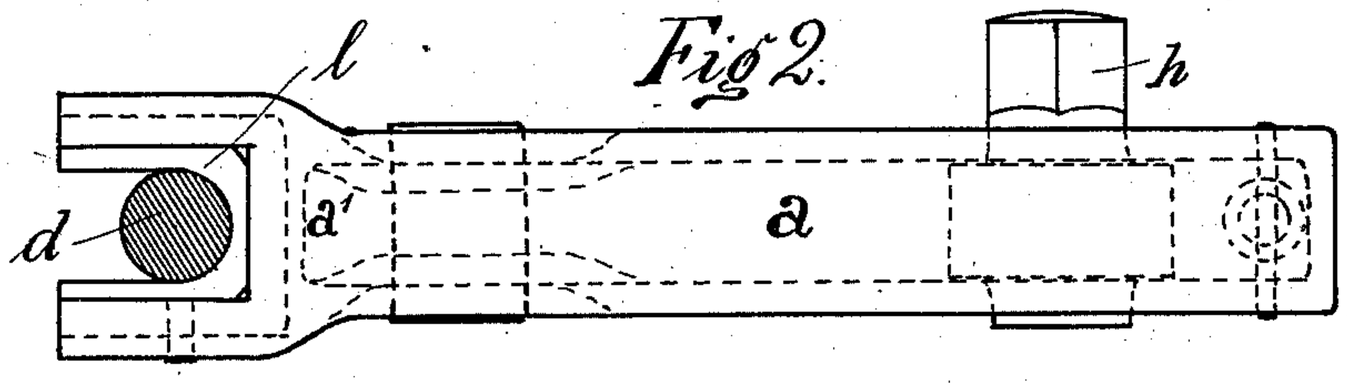


Fig 3.

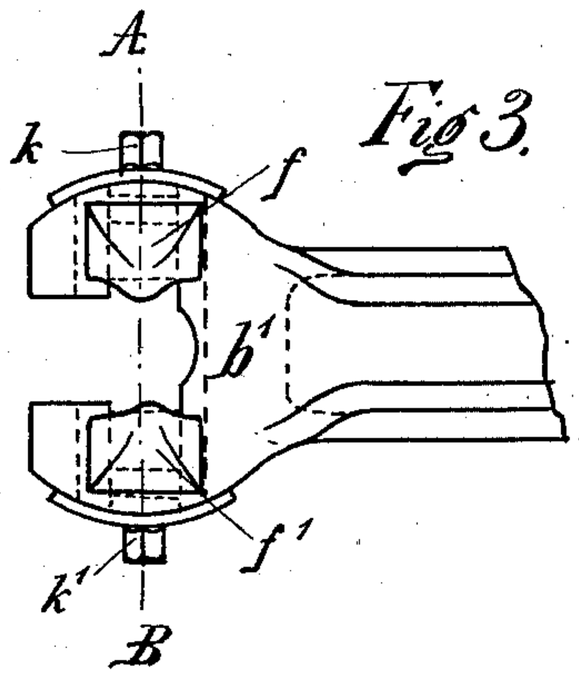
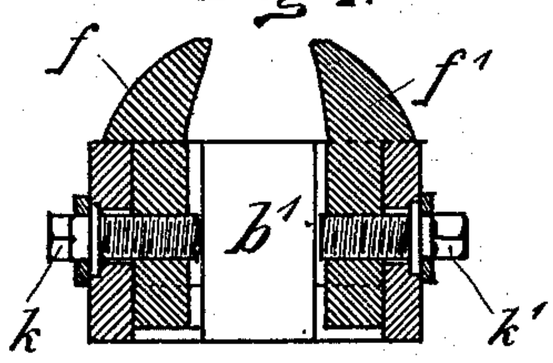


Fig 4.



Witnesses.

Hiroshi Mori

Ludwig Flum

Inventor.

Franz Georg Oldenburg

by Briesen & Knight. Att'y.

No. 717,261. Patented Dec. 30, 1902.

F. G. OLDENBURG.

TOOL FOR FIXING IRON RAILINGS.

(Application filed June 20, 1902.)

(No Model.) 2 Sheets—Sheet 2.

Fig 5.

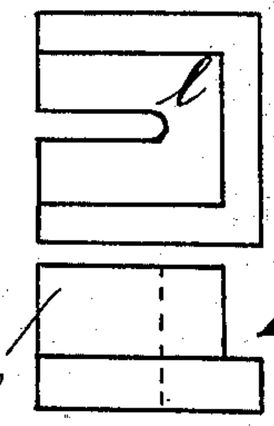


Fig 6.

Fig 7.

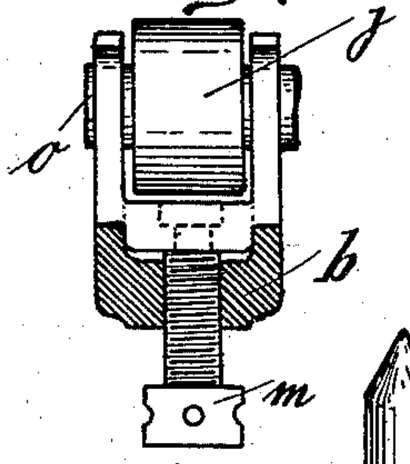
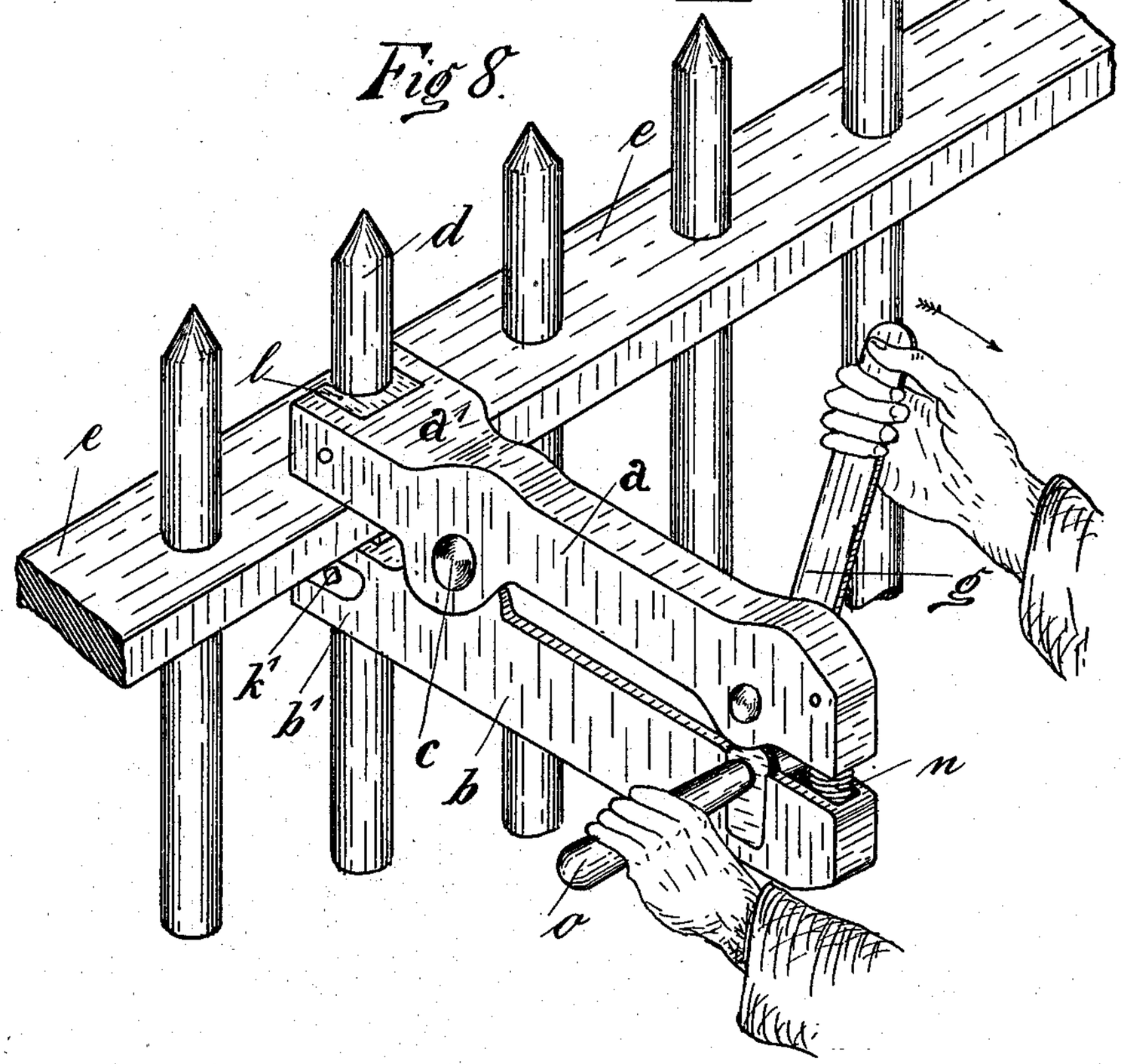


Fig 8.



Witnesses.
Hiroshi Mori.
Ludwig Flum.

Inventor.
Franz Georg Oldenburg
by B Singer
Att'y.

UNITED STATES PATENT OFFICE.

FRANZ GEORG OLDENBURG, OF ALTONA, NEAR HAMBURG, GERMANY.

TOOL FOR FIXING IRON RAILINGS.

SPECIFICATION forming part of Letters Patent No. 717,261, dated December 30, 1902.

Application filed June 20, 1902. Serial No. 112,437. (No model.)

To all whom it may concern:

Be it known that I, FRANZ GEORG OLDENBURG, manufacturer, of 12 Eimsbüttelerstrasse, Altona, near Hamburg, in the Empire of Germany, have invented certain new and useful Improvements in Portable Hand-Tools for Calking Metal Fence-Railings and the Like, (for which patent applications were filed in Germany, France, Austria, Hungary, Denmark, Sweden, Norway, Great Britain, Luxemburg, and Belgium May 21, 1902,) of which the following is a specification.

Various devices have been proposed for calking the uprights or pickets of metal fences in the horizontal rails otherwise than by the old hammer-and-chisel method which involved the attendance of two workmen; but so far as I am aware all of them were of unnecessarily complex construction.

The object of my invention is to provide a portable hand-tool for such purposes of extremely simple and durable construction, avoiding all unnecessary parts, and reducing wear and lost motion to a minimum.

The invention is illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation of the tool. Fig. 2 is a corresponding plan view. Fig. 3 is a top plan view of the lower jaw, showing the calking-cheeks. Fig. 4 is a cross-section on the line A B of Fig. 3. Figs. 5 and 6 are respectively a plan view and an elevation of the insertion-piece or liner for the upper jaw of the tool. Fig. 7 is a cross-section on the line C D of Fig. 1, and Fig. 8 is a perspective view of the tool in use.

The tool consists of an upper arm *a* and a lower arm *b*, which are connected by the intermediate pivot-pin *c*. The parts *a'* and *b'* in front of the pivot form the jaw of the tool and are rigid with the corresponding arms. The upper jaw *a'* is forked, so as to permit of its embracing the rail *d*. The lower jaw *b'* is also forked. The jaws are passed over the flat iron bar *e* until the fork of the jaw *a'* lies against the rail. In the lower jaw *b'* of the tool are arranged normally fixed laterally-adjustable calking-cheeks *f* and *f'*, which seize the iron of the flat bar *e* upon both sides of the rail.

By means of a lever *g*, which is mounted upon a squared end of a shaft provided with a cam or eccentric *i* and arranged in the rear end of arm *a* of the tool in such a manner as to be capable of displacement in the direction indicated by the arrow in Figs. 1 and 8, the cam portion *i* may be pressed against the pressure-roll *j*, mounted in the other arm *b* of the tool. The jaws will then be caused to close powerfully, whereupon the cheeks *f* and *f'* will exert a pressure upon the material of the flat iron bar *e*, forcing it in somewhat against the rail or bar of circular cross-section upon both sides, and thereby fixing this latter firmly in position.

In order that the cheeks *f f'* may sit centrally whatever may be the diameter of the rail employed, provision may be made for adjusting these cheeks by means of set-screws *k k'*, as shown in Fig. 4, working in elongated slots through the forks of the lower jaw.

Interchangeable insertion-pieces *l* of different openings may also be used for the upper jaw *a'* for suiting different rails, and finally in order to suit various thicknesses of flat iron bar the width of the opening between *a'* and *b'* may be adjusted by moving the pressure-roll *j* more or less up against the cam portion *i* by means of set-screw *m*.

The pressure exerted by the cheeks *f f'* remains constant and is dependent upon the eccentricity of the cam *i*. When the holes in the flat iron bar are exactly proportioned to the rails to be employed, obviously it is only necessary to produce a small indentation in order to fix the rail in place.

The arms *a* and *b* are constantly held together by means of a spring *n*, so that the tool is normally open.

The spindle *o* of the pressure-roll *j* is prolonged, so as to constitute a handle, (see Fig. 8,) so as to facilitate the manipulation of the tool.

My improved tool is not only applicable for fixing bars or rails of circular cross-section, but may be employed for rails of rectangular or other cross-section. In order to insure proper adjustment, it is only necessary to select suitable insertion-pieces *l* for the jaw *a'*.

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

1. The combination to form a portable hand-tool for calking metal railings, of two arms *a b* pivoted together at *c*, forked jaws

a' b' rigid with the corresponding arms, normally fixed calking-cheeks $f f'$ secured in the forks of jaw b', means for adjusting said cheeks laterally in said forks to center them with reference to the pickets or uprights of the railing, and fixing them in their adjusted position, and means connected to the arms a b for forcing said jaws together.

2. The combination to form a portable hand-tool for calking metal railings, of two arms a, b pivoted together at c, forked jaws a' b' rigid with the corresponding arms, normally fixed calking-cheeks $f f'$ secured in the forks of jaw b', a cam or eccentric i mounted in the farther end of arm a, means for operating said eccentric, a pressure-roll j adjustably mounted in the farther end of arm b, opposite said eccentric, and a set-screw m for adjusting said roll toward and from the eccentric.

3. The combination to form a portable hand-tool for calking metal railings, of two lever-arms a b pivoted together at the point c, forked jaws a' b' rigid with the corresponding arms, normally fixed calking-cheeks f, f' secured in the forks of jaw b', a cam or eccentric i mounted in the farther end of arm a, means for operating said eccentric, a pressure-roll j' adjustably mounted in the farther end of arm b opposite said eccentric, a set-screw m for adjusting said roll toward and from the eccentric and a spring n normally holding said arms together.

In testimony whereof I affix my signature in presence of two witnesses.

FRANZ GEORG OLDENBURG.

Witnesses:
E. H. L. MUMMENHOFF,
OTTO W. HILLMRICH.