

P. M. GRANDPERRIN.
WOOD CUTTER OR COUNTERSINK.
APPLICATION FILED APR. 29, 1909.

961,770.

Patented June 21, 1910.

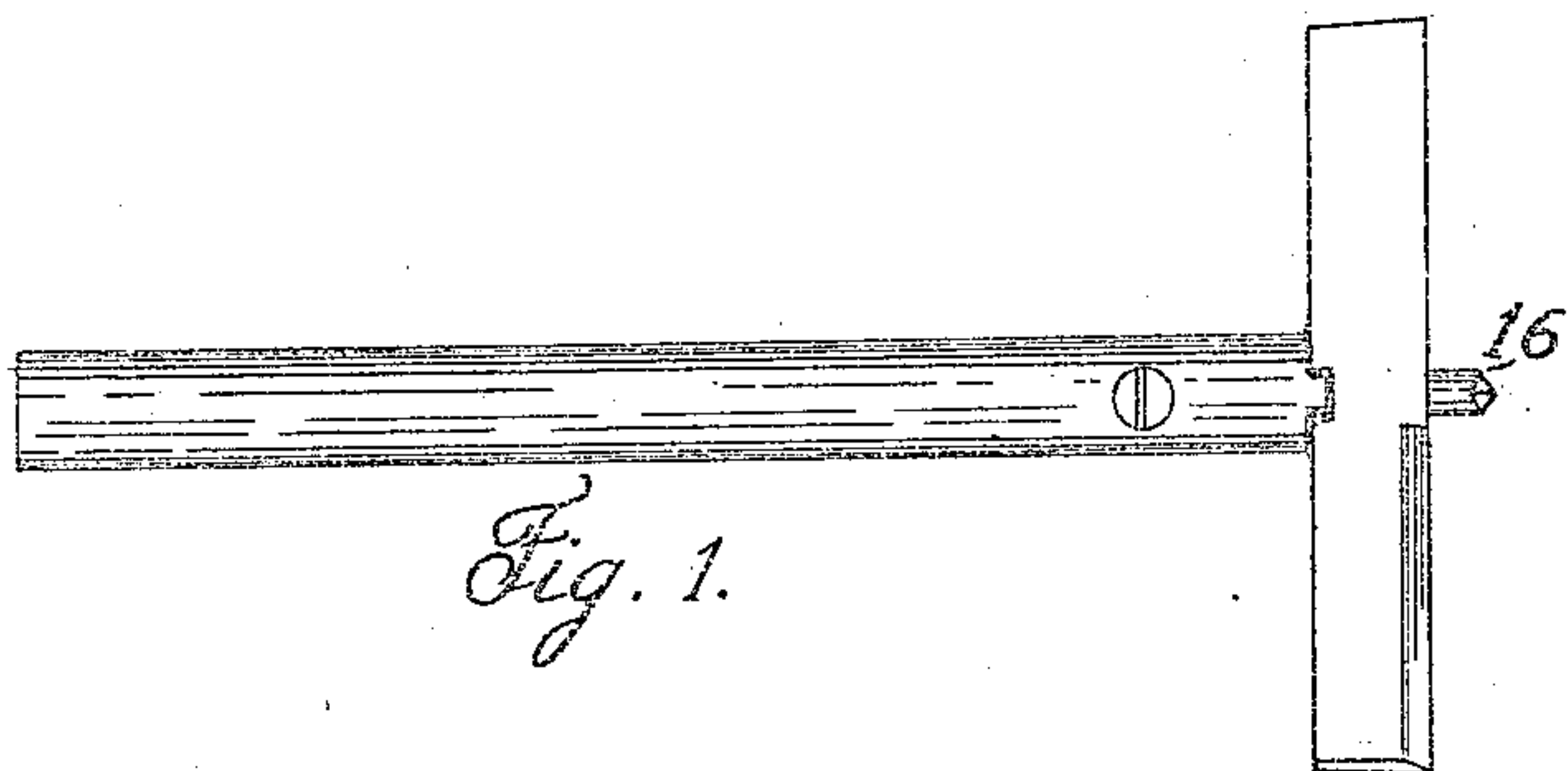


Fig. 1.

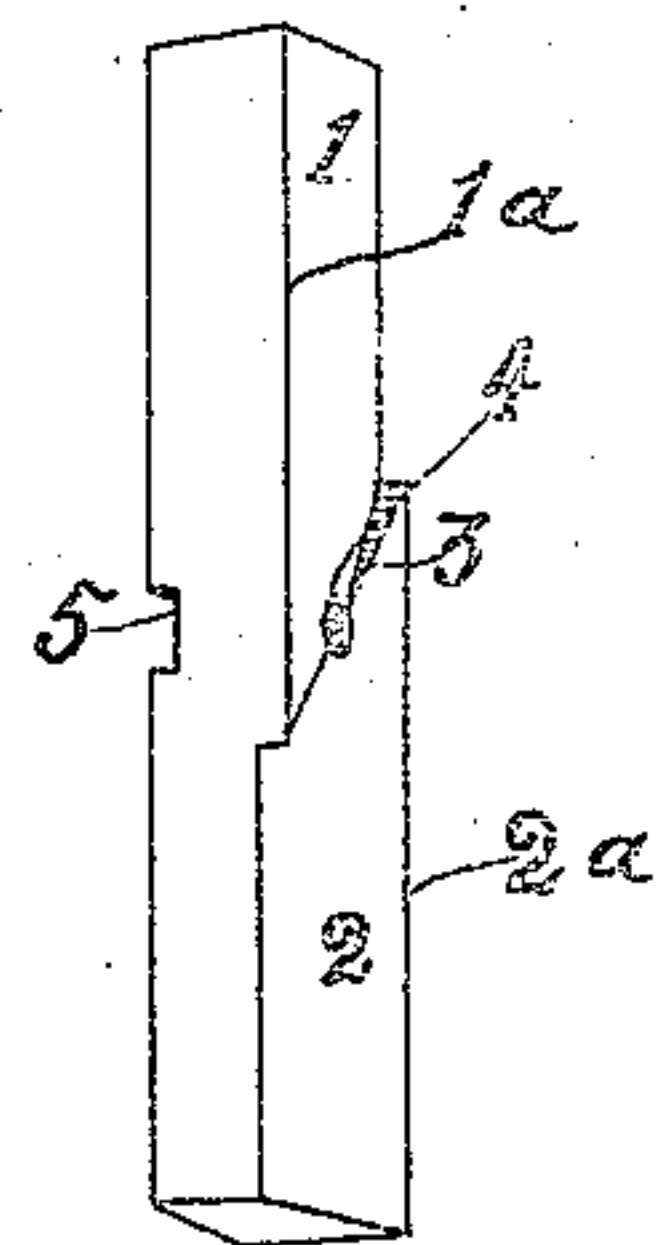


Fig. 2.

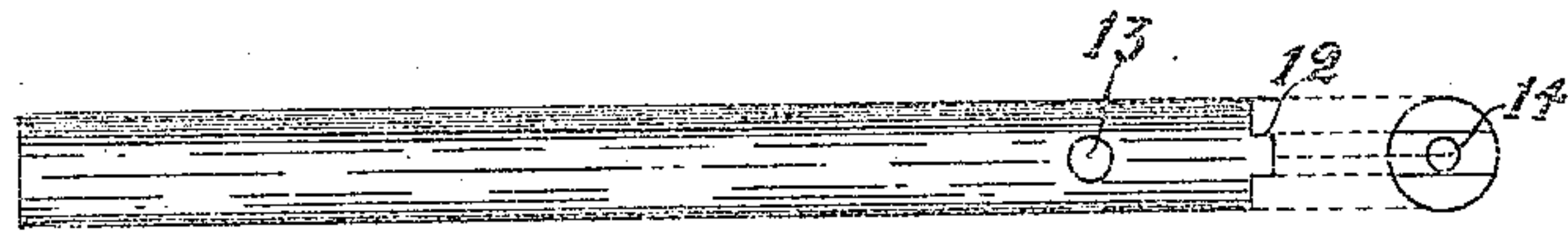


Fig. 3.

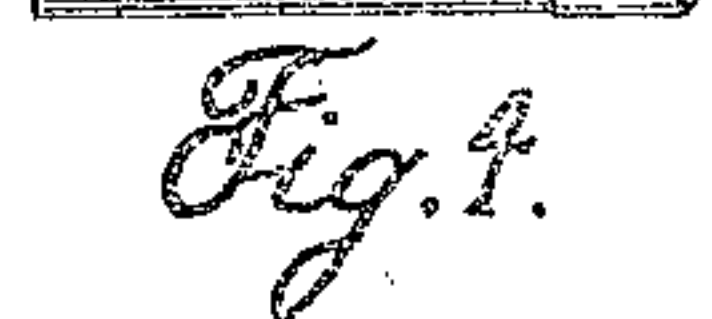


Fig. 4.

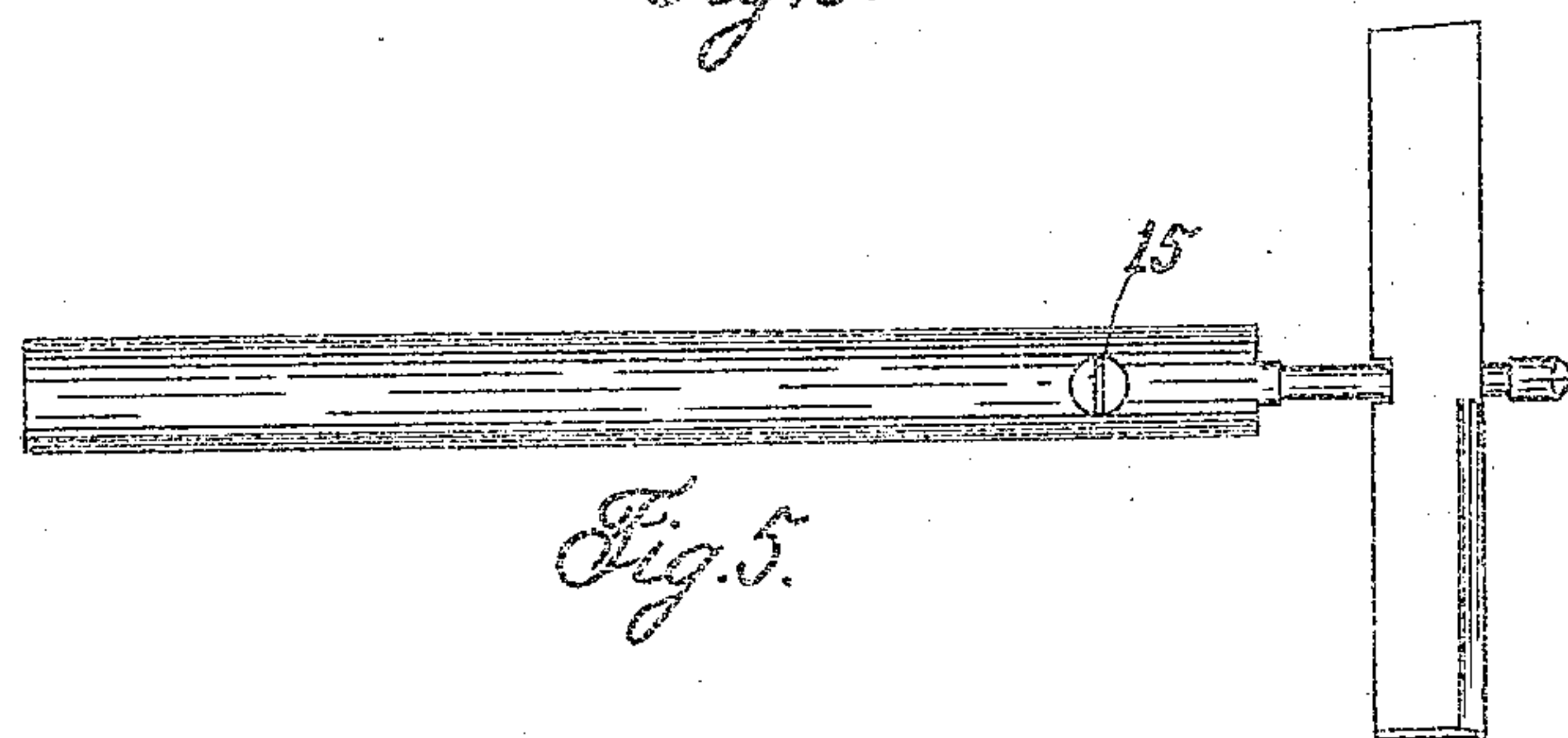


Fig. 5.

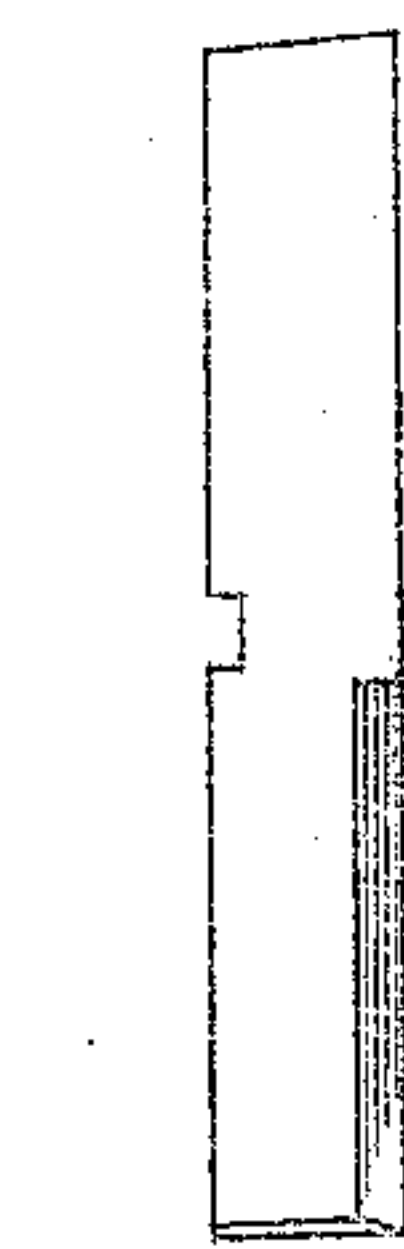


Fig. 6.

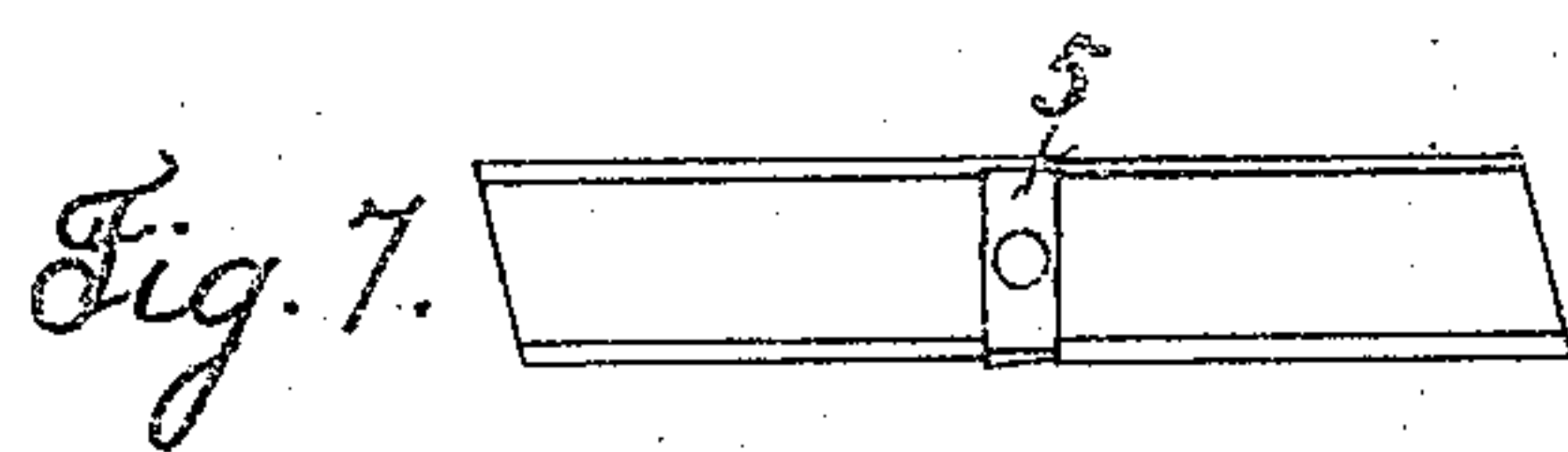


Fig. 7.

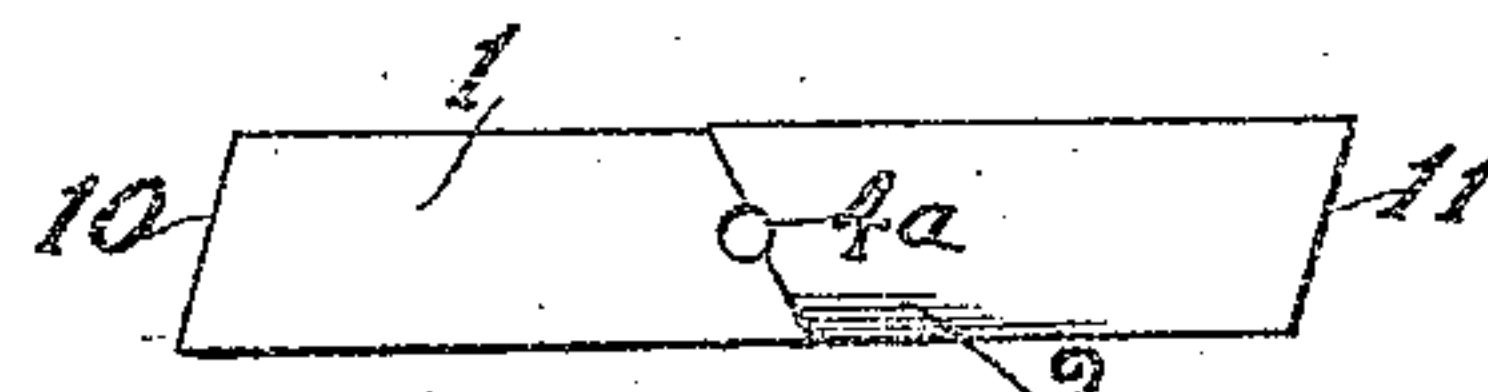


Fig. 8.



Fig. 9.

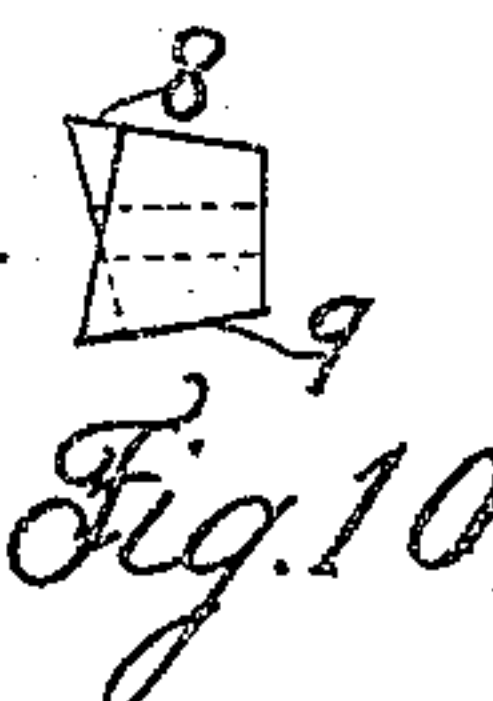


Fig. 10.

WITNESSES:

Geo. Bloomingburgh.
Mary Ruddy.

INVENTOR.

Paul M. Grandperrin

UNITED STATES PATENT OFFICE.

PAUL M. GRANDPERRIN, OF SAG HARBOR, NEW YORK.

WOOD-CUTTER OR COUNTERSINK.

961,770.

Specification of Letters Patent. Patented June 21, 1910.

Application filed April 29, 1909. Serial No. 493,006.

To all whom it may concern:

Be it known that I, PAUL M. GRANDPERRIN, a citizen of France, residing at Sag Harbor, in the county of Suffolk and State of New York, have invented a new and useful Wood-Cutter or Countersink, of which the following is a specification.

This invention relates to a wood cutter or counter sink intended especially for wood work, by means of which holes or apertures can be bored in wood.

It has long been admitted and recognized that wood workers were badly in need of a cheap and effective wood cutter. My device provides a wood cutter, or counter sink, which has the advantages over most of the previous inventions in the same line, that it can be manufactured and sold at an exceptionally low price and that it can be hardened and still be easily sharpened without taking the temper out of said cutter.

Being experienced in minute cabinet making, I often had to endure much annoyance when wishing to do counter sinking in thin boards. It often resulted in spoiling the work, for it often occurs that the edges are so badly torn that the work is much disfigured, and thin boards seldom offer the resistance required for the use of many of the existing cutters or counter sinks. Therefore, my object was to overcome these difficulties, and I have succeeded in providing a wood cutter or counter sink which will leave the apertures made by it as smooth as can be desired, which will cut edges as sharp as can be expected from wood, and which will leave the bottom of the cutting very smooth and flat, if desired.

This wood cutter is most suitable for speedily working arrangements such as lathes.

In the accompanying drawing forming a part of this specification Figure 1 is a perspective view of the shank and cutter combined; Fig. 2 is a perspective view of the cutter detached; Fig. 3 is a plan view of the shank; Fig. 4 is a perspective view of the holding stem; Fig. 5 shows the shank and holding stem in perspective and the cutter in side elevation, the holding stem being partly drawn out of the shank and the cutter ready to be mounted on the shank; Fig. 6, also, is a side view of

said cutter; Fig. 7 is a top plan view of said cutter; Fig. 8 is a bottom view of said cutter; Fig. 9 is an end view, and Fig. 10 is the other end view of said cutter.

Like reference numerals indicate corresponding parts in the different figures of the drawing.

The said wood cutter is made of suitable metal and size. The contour line of the bottom view has much the appearance of a parallelogram bisected, each part being beveled,—see 1 and 2 of Fig. 2, the bevelings running in a reversed direction to each other and meeting in the middle of said cutter, giving the appearance of an oblique line running through the center and bisected by an aperture.

The cutter, or counter sink, is ground to a bevel on each side,—see 8 and 9; a bevel at each end,—see 10 and 11, and two bevels on the bottom side as shown. These bevelings are combined so that the intersections of the sides with the bottom and ends of said cutter, form on the contour line of the bottom of said cutter, sharp cutting edges, 1^a and 2^a, which extend along the said cutter from the ends beyond the middle thereof and are connected by a diagonal line crossing the center and forming oppositely facing cutting shoulders decreasing in depth from the longitudinal edges toward the center of the cutter. For working the said cutter, I provide the well known shank, which is at one end flattened or cut away so as to form a projection 12, Fig. 3. Said shank is provided at one end in the center of the face with a suitable aperture 14 and is also provided with a threaded aperture 13 to admit a suitable screw 15.

Projection 12 is shaped so as to correspond to a suitable groove 5 which is provided in the middle of the top of said cutter.

To hold the said cutter in position when mounted on the stem, I have devised a simple means which resides in employing a rather small stem, which I call a holding stem, see Fig. 4, the diameter of which is slightly augmented at one end.

The smaller end is admitted through a suitable aperture 4, in the center of the cutter, and is then inserted in the aperture 14 of the shank as much as possible. Screw 15 holds the stem and thus the said cutter in

working position, it being understood that the projecting end 16 represents the largest in diameter portion of the holding stem.

I claim—

- 5 A cutter bar or bit adapted to be fitted transversely to a shaft and oppositely beveled on one face from opposite longitudinal edges of said face from each end to a point beyond the center such oppositely beveled
10 portions meeting on a diagonal line intersecting the center presenting aligned or par-

allel diagonal cutting shoulders decreasing in depth from said longitudinal edges of the face toward the center longitudinal line of the bit.

In testimony that I claim the foregoing as my own, I have affixed my signature in the presence of two witnesses.

PAUL M. GRANDPERRIN.

Witnesses:

MARY RUNDY,

GEO. S. BLOOMINGBURGH.