

(No Model.)

F. E. LINDAHL.
WATCHMAKER'S TOOL.

No. 478,615.

Patented July 12, 1892.

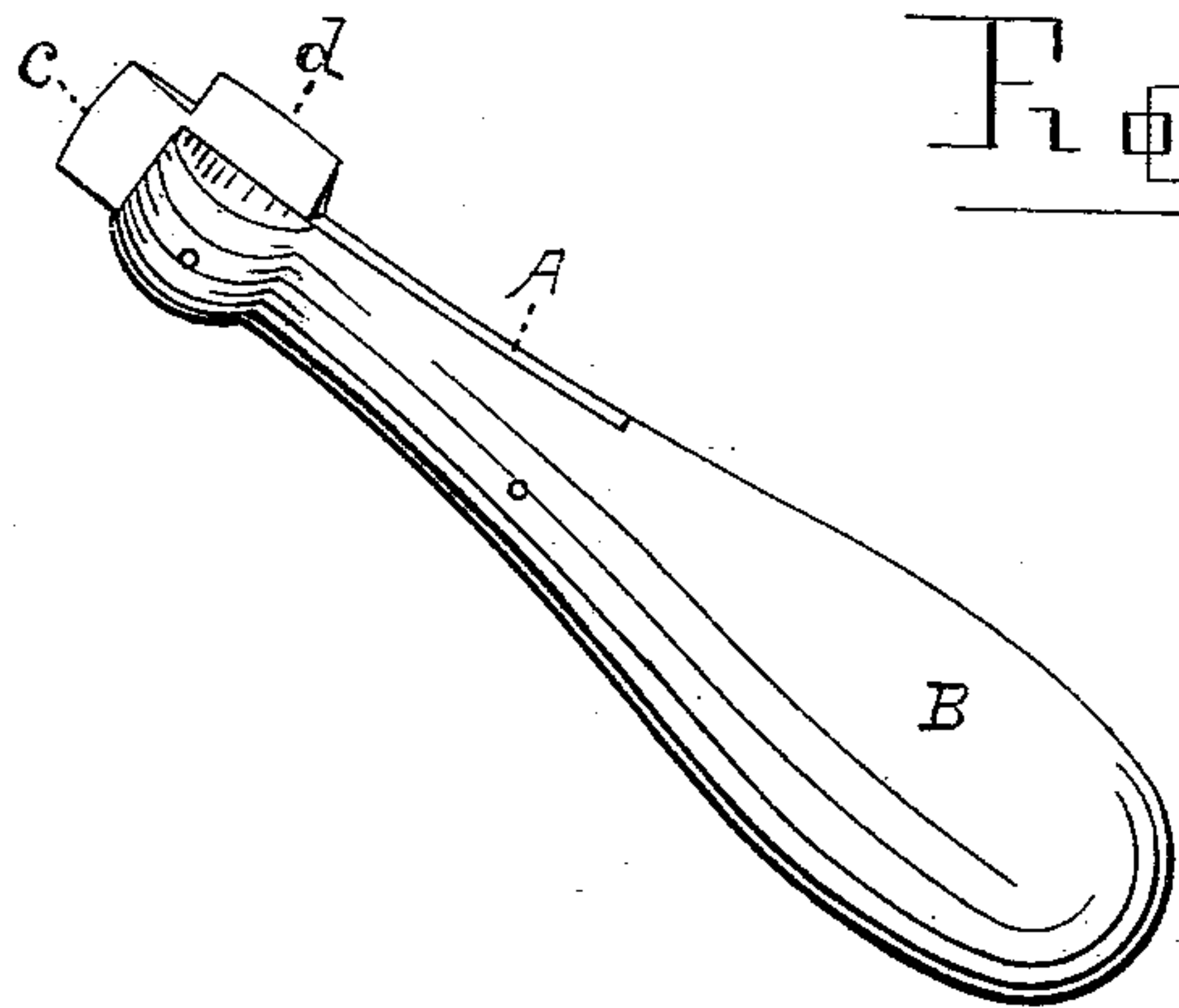


Fig. 1.

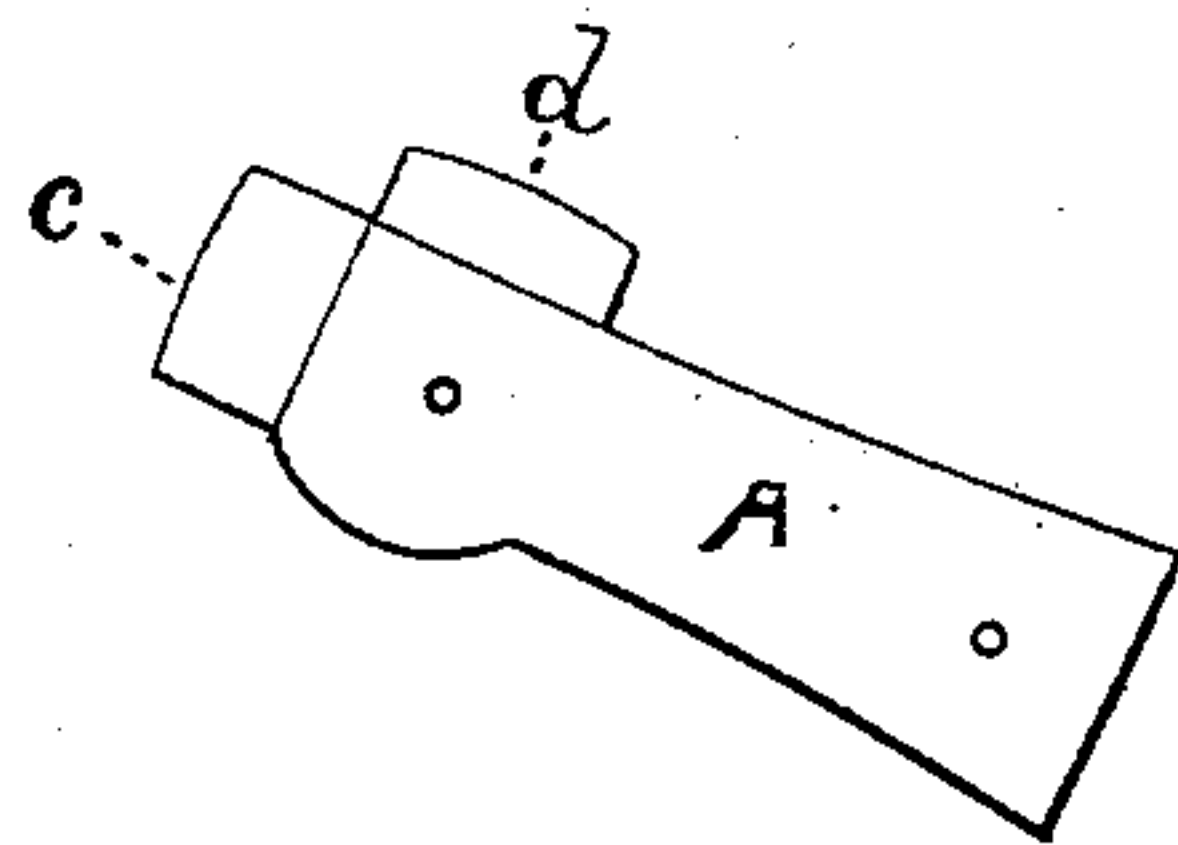


Fig. 2.

WITNESSES:

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WATCHMAKER'S TOOL.

SPECIFICATION forming part of Letters Patent No. 478,615, dated July 12, 1892.

Application filed August 14, 1891. Serial No. 402,690. (No model.)

To all whom it may concern:

Be it known that I, FRANK E. LINDAHL, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Watch-Case Openers, of which the following is a specification.

My invention relates to that class of watchmakers' tools called "case-openers."

10 The object of my invention is to open easily and without especial care the case or cap of the most tight-fitting watches and to do so rapidly, when necessary, with the least injury to the case, cap, or ring, and also to entirely
15 prevent the inside faces of case or cap being marred in the operation or damage being done to the exposed parts of the movement by a failure in judgment on the part of the operator to guess at the exact amount of
20 force necessary in the operation of opening watches, as is the case of other case-openers with which I am acquainted.

The first part of my invention consists in the formation of two wedge-shaped edges or
25 projections, the one on the end and the other on the side and near the end of a flat bar or plate of steel.

The second part of my invention consists in the proper attachment of a suitable-shaped
30 wooden handle to said plate of steel in such manner that the wedge-shaped edges thereof shall project their respective distance beyond the handle, the object being to form a stop for the tool and prevent the wedge-
35 shaped projections of the case-opener from entering but the necessary distance between the case and ring or cap and ring to insure the opening of all-sized watches without injury.

40 Figure 1 is a perspective view of my invention, full-sized; and Fig. 2 is a plan view of steel plate properly formed.

In the drawings the letter A represents the steel plate, and B the wooden handle, to which
45 it is properly fastened by rivets. The handle is always made of wood turned in round form, somewhat resembling other tool-handles. The smaller end is saw-kerfed and chamfered on one side, as shown in Fig. 1.

c and *d* are the wedge-shaped projecting 50 edges of the steel plate. In other respects the plate A in outer contour is made to conform to the shape of the handle, to which it is fitted in a saw-kerf down the center of the handle and to such depth as will give to the
55 projection *c* its proper length to reach and open the cap of any-sized watch before coming in contact with the handle *d*. The wedge-shaped projection on the side is the edge for opening the case, and especially so in a very
60 tight newly-fitted case, which often in the cheaper grades of watches requires the united strength of both hands to open.

The operation in such a case would be to place the watch flat in the palm of one hand 65 and with the other place the edge of the projection *d* in the joint of the case and force it open with the united effort of both hands.

As the chamfered end of the handle forms a stop for the tool, no care need be taken, as 70 no ill results can follow the employment of a greater force than absolutely required for the operation.

The end of the handle, which forms the stop as well as the chamfered side, I intend 75 to curve slightly to conform somewhat to the watch-case against which it strikes.

One advantage of my invention is that I can force the case open quickly and with no damage done except the wear of the tool on 80 that particular spot on the case and ring. In other case-openers in use the case has to be pried open, which is very destructive to the case and a very erroneous method.

Having thus described my invention, what 85 I claim is—

As a new article of manufacture, the within-described improved watchmaker's tool, consisting of the handle B, carrying the steel plate A, provided with the wedge-shaped 90 edges *c* and *d*, substantially as and for the purpose set forth.

FRANK E. LINDAHL.

Witnesses:

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JNO. M. JONES.