

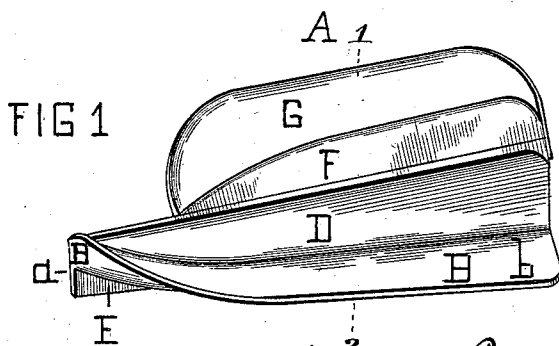
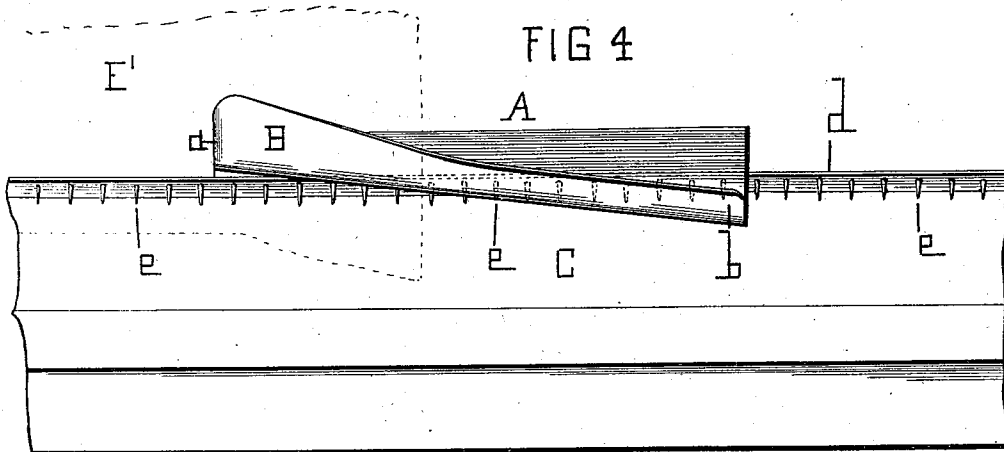
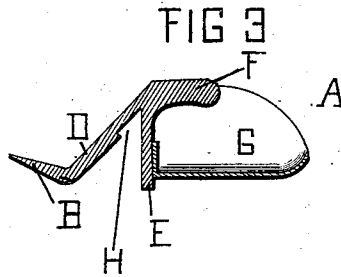
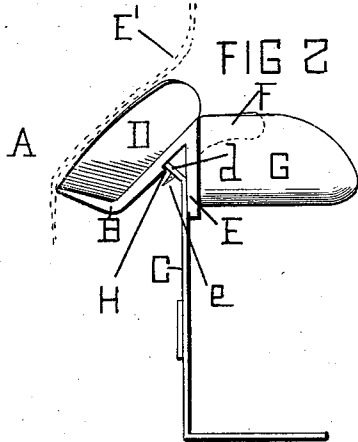
(No Model.)

F. A. LOEB.

CLOTH DISENGAGING TOOL FOR EMBROIDERING MACHINES.

No. 556,546.

Patented Mar. 17, 1896



Witnesses  
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# UNITED STATES PATENT OFFICE.

FERDINAND A. LOEB, OF CAMDEN, NEW JERSEY.

## CLOTH-DISENGAGING TOOL FOR EMBROIDERING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 556,546, dated March 17, 1896.

Application filed July 9, 1895. Serial No. 555,362. (No model.)

*To all whom it may concern:*

Be it known that I, FERDINAND A. LOEB, a citizen of the United States, residing at Camden, in the county of Camden and State of New Jersey, have invented a new and useful Disengaging-Tool for Embroidering-Machines, of which the following is a specification.

The invention relates to the removal of an embroidering-cloth from the pins or hooks which hold it to the lower bar of the embroidering-frame.

It consists in a removable hand-tool having a downwardly and outwardly curved embroidering-cloth-disengaging plate which is moved along the top of the pin or hook bar, thereby speedily, easily, and safely depressing, pushing out, and disengaging said embroidered cloth from the pins or hooks which hold it to said lower bar. A locking-groove locks the tool in engagement with the pin or hook bar while in operation. A hand-hold assists the operator in manipulating the tool, and a guard protects the hand from injury.

On reference to the accompanying sheet of drawings, making part of this specification, Figure 1 is a perspective side elevation of the tool. Fig. 2 is an end elevation of the disengaging-tool in locking engagement with the pin or hook bar. The embroidered cloth being disengaged is shown in dotted lines. Fig. 3 is a transverse section of the tool through the lines 1 2, Fig. 1; and Fig. 4 is a side elevation of the pin or hook bar in locking engagement with the tool which is disengaging an embroidered cloth, shown in dotted lines.

Similar letters refer to similar parts in the several views.

A is a movable embroidering-cloth-disengaging tool, of which B is a disengaging-plate, having a downward and outward curve and sweep from its edge-shaped vertical front *a* for entering between the cloth and the bottom bar C, to the broad and wide rear *b*. A wedge-shaped upwardly-inclined projection D supports and carries the curved plate.

E is a longitudinal guide-plate depending

from the wedge D, against which the tool bears, and is guided along the pin or hook bar when in operation.

F is a hand-hold extending outwardly from the depending plate D for the grasp of the operator, and G is a hand-guard which projects outwardly from the guard-rail for protecting the operator's hands.

A longitudinal locking-notch H is formed at the intersection of the wedge D and the depending guide-plate E, making a locking connection between the removable tool A and the top *d* of the pin or hook rail C during the operation of disengaging the embroidered cloth E' from the frame.

In removing an embroidered cloth E' from its frame, dotted lines, Figs. 2 and 4, the operator grasps the tool A by the hand-hold F, the guard-plate G extending over his hand, or far enough to protect it. A locking contact with the pin or hook bar C is formed by engaging the top *d* of said pin or hook bar with the longitudinal locking-notch H. On sliding the tool on the bar C and against the longitudinal guide-plate E the edge-shaped vertical front *a* enters between said pin or hook rail C and the embroidered cloth E', and easily and quickly presses it downwardly and outwardly by the curve and sweep of the disengaging-plate B, and detaches it from the pins or hooks *e* of the rail. Heretofore the removal has been effected by the operator disengaging by hand one pin at a time.

I claim—

In an embroidering-machine, the combination of an embroidering-frame, and a disengaging-tool consisting in a longitudinal disengaging-plate, longitudinal guide-plate, locking-groove, hand-hold, and hand-hold guard, for disengaging an embroidering-cloth from its embroidering-frame.

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

FERDINAND A. LOEB.

Witnesses:

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