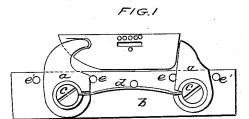
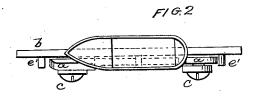
## V. CUTTER.

## Shuttle Driver for Sewing Machines.

No. 49,091.

Patented Aug. 1, 1865.





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## UNITED STATES PATENT OFFICE.

VOLNEY CUTTER, OF CINCINNATI, OHIO.

## IMPROVEMENT IN SHUTTLE-DRIVERS FOR SEWING-MACHINES.

Specification forming part of Letters Patent No. 49,091, dated August 1, 1865.

To all whom it may concern:

Be it known that I, VOLNEY CUTTER, of Cincinnati, in the county of Hamilton and State of Ohio, have invented a new and Improved Shuttle-Driver for Sewing-Machines; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 represents a front elevation of this invention. Fig. 2 is a plan or top view of the same.

Similar letters of reference indicate corre-

sponding parts.

Shuttle-drivers of sewing-machines are generally constructed with two horns, one to catch in a cavity near the beak of the shuttle and the other to bear on its stern; and if the machine is worked rapidly said horns come into violent contact with the shuttle at either end of the stroke of the shuttle-driver, and the horns are pounded and injured, and require to be repaired at short intervals. These disadvantages I have avoided by making the horns or tappets a of my shuttle-driver yielding. Said horns are formed similar to those of an ordinary shuttle-driver, or they may be formed in any desirable manner; but, instead of being

rigidly attached to the supporting-plate b, my horns are secured thereto by pivots e and subjected to the action of a spring, d, which presses them inward against pins e. These pins are inserted into the supporting-plate, and they, together with similar pins, e', secured in said plate outside the horns, limit the oscillating motion of said horns.

The spring d may be secured to the tappets or horns by having its ends catch into slots cut in the horns and its center bearing against a pin projecting from the supporting-plate.

It is obvious that this improvement is applicable to shuttle-drivers for sewing-machines of any desired construction, and I do not wish to confine myself to any particular form of the horns.

If desired, the horns might be made rigid and a spring applied to their inner edges to form cushions.

I claim as new and desire to secure by Letters Patent—

The spring d and its central bearing-pin, in combination with the pivots e, horns or tappets a a, and pins e e, as described, and for the purpose explained.

VOLNEY CUTTER.

Witnesses: W. R. RITTWEGER, A. JONTE.