(No Model.)

C. F. HARLOW & E. E. ANGELL.

PRESSER FOOT LIFTING MECHANISM.

No. 350,304. Patented Oct. 5, 1886.

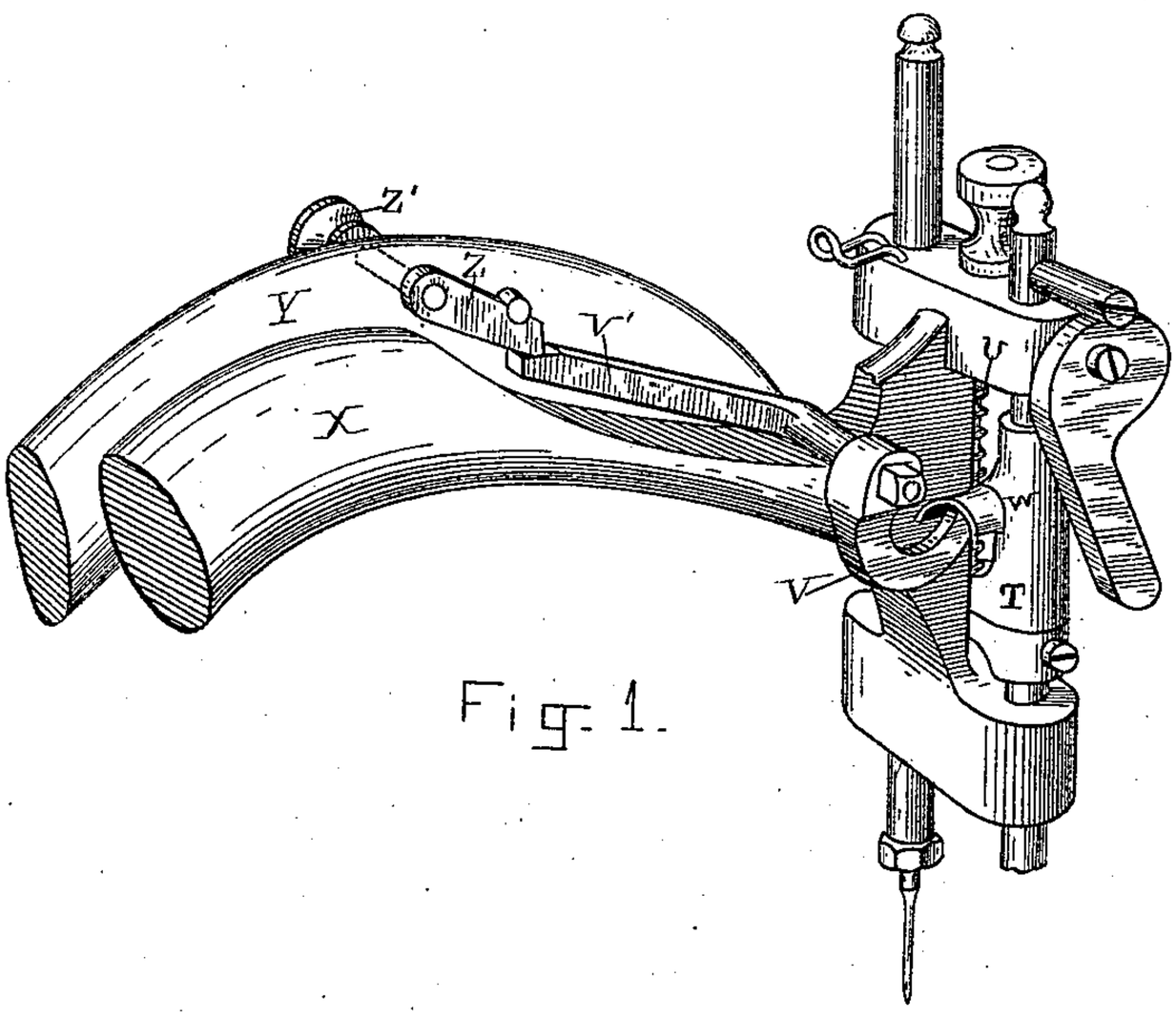

Fig. 1.

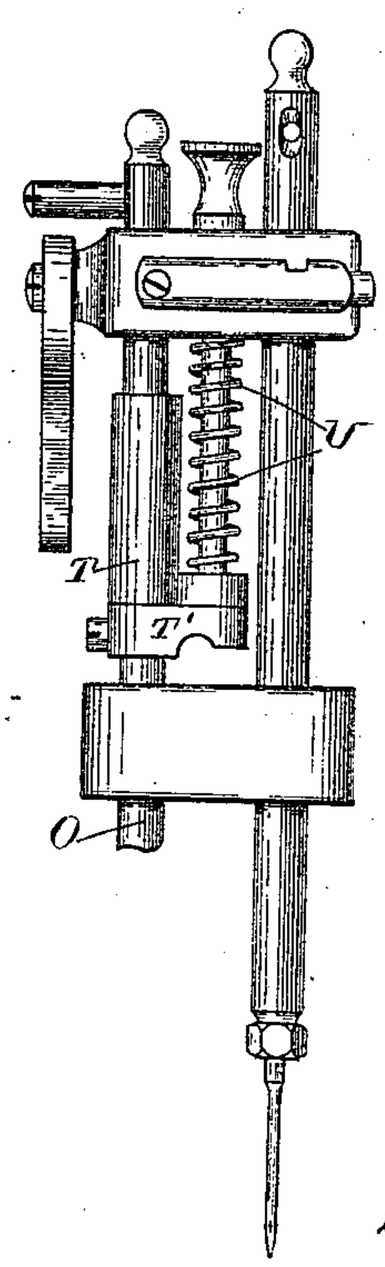

Fig. 2.

WITNESSES:
Chas. S. Gooding.
Chas K Stinson

INVENTOR:
Charles F. Harlow,
Edwin E. Angell,
by A. H. Spencer,
Attorney.

UNITED STATES PATENT OFFICE.

CHARLES F. HARLOW AND EDWIN E. ANGELL, OF MALDEN, ASSIGNORS TO THE GLOBE SEWING MACHINE COMPANY, OF BOSTON, MASSACHUSETTS.

PRESSER-FOOT-LIFTING MECHANISM.

SPECIFICATION forming part of Letters Patent No. 350,304, dated October 5, 1886.

Application filed October 12, 1885. Serial No. 179,674. (No model.)

To all whom it may concern:

Be it known that we, CHARLES F. HARLOW and EDWIN E. ANGELL, both of Malden, in the county of Middlesex and State of Massachusetts, have jointly invented a new and useful Improvement in Presser-Foot-Lifting Mechanism for Sewing-Machines, of which the following, taken in connection with the accompanying drawings, is a specification.

Our present improvement relates to a relief mechanism by means of which the pressure of the presser-foot in a sewing-machine is taken off at a certain point in each stitch, if desired.

This invention is particularly useful in such machines as are employed in sewing straw braid in hat manufacture, &c.

In the drawings, Figure 1 is a perspective view of part of a sewing-machine provided with our improvement, and Fig. 2 is an end elevation thereof.

The presser-bar O has a sleeve, T, surrounding and fixed upon its upper part, with a projection, T′, upon which a spring, U, bears to give the desired downward pressure to the presser-foot. When sewing braid in the hat-crown, or elsewhere, where short curves are made, it is desirable to turn the work while the needle is passed through it. To do this we relieve the pressure of the spring U at the desired moment by forming a lug, W, on the sleeve T, and lifting said lug and sleeve and presser-bar automatically by a lever, V V′, pivoted in the overhanging arm X of the machine, as shown where broken away in Fig. 1. The long end V′ of this lever is between the arm X of the frame and the vibrating needle-lever Y, and at each stroke such arm V′ is acted on automatically by a dog, Z, carried on the arm Y, which strikes said end as the needle is depressed, causing the short arm V to lift the sleeve T, presser-bar O, and presser-foot. When desired, this action may be suspended by turning the dog by a knob, Z′, so as not to strike the lever end, as will be apparent from Fig. 1.

The dog Z and knob Z′ are connected by a stem passing through the needle-lever Y with sufficient friction to hold said knob and dog in any position to which they may be adjusted; or any well-known friction or securing device may be provided for holding said dog in or out of its operative position.

We claim as our joint invention—

The combination, with the presser-bar O and the sleeve T, having the projection or arm T′ and the lug W, of the spring U, pressing on said arm or projection, the presser-bar-operating lever V V′, the stationary arm X, to which said lever is pivoted, the vibrating needle-lever, and the dog Z, pivoted to the latter and adapted to be moved into or out of engagement with the said presser-bar-operating lever, substantially as set forth.

In testimony whereof we have signed our names to this specification, in the presence of two subscribing witnesses, on this 8th day of October, A. D. 1885.

CHARLES F. HARLOW.
EDWIN E. ANGELL.

Witnesses:
A. H. SPENCER,
C. G. KEYES.