(No Model.)

H. M. LECTURE.

YIELDING CAM-STOP FOR STRAIGHT KNITTING MACHINES.

No. 436,982. Patented Sept. 23, 1890.

Fig. 1.

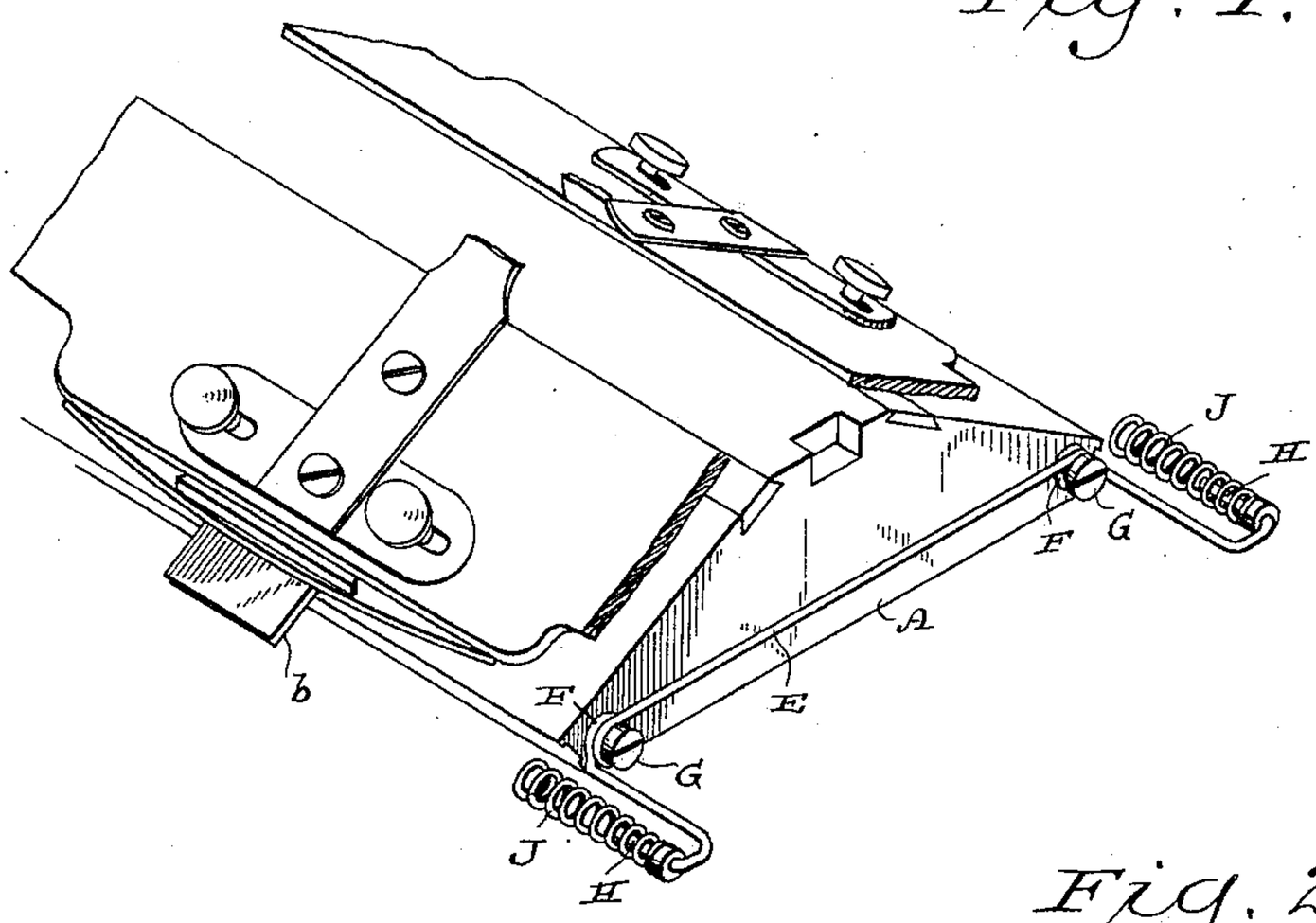

Fig. 2.

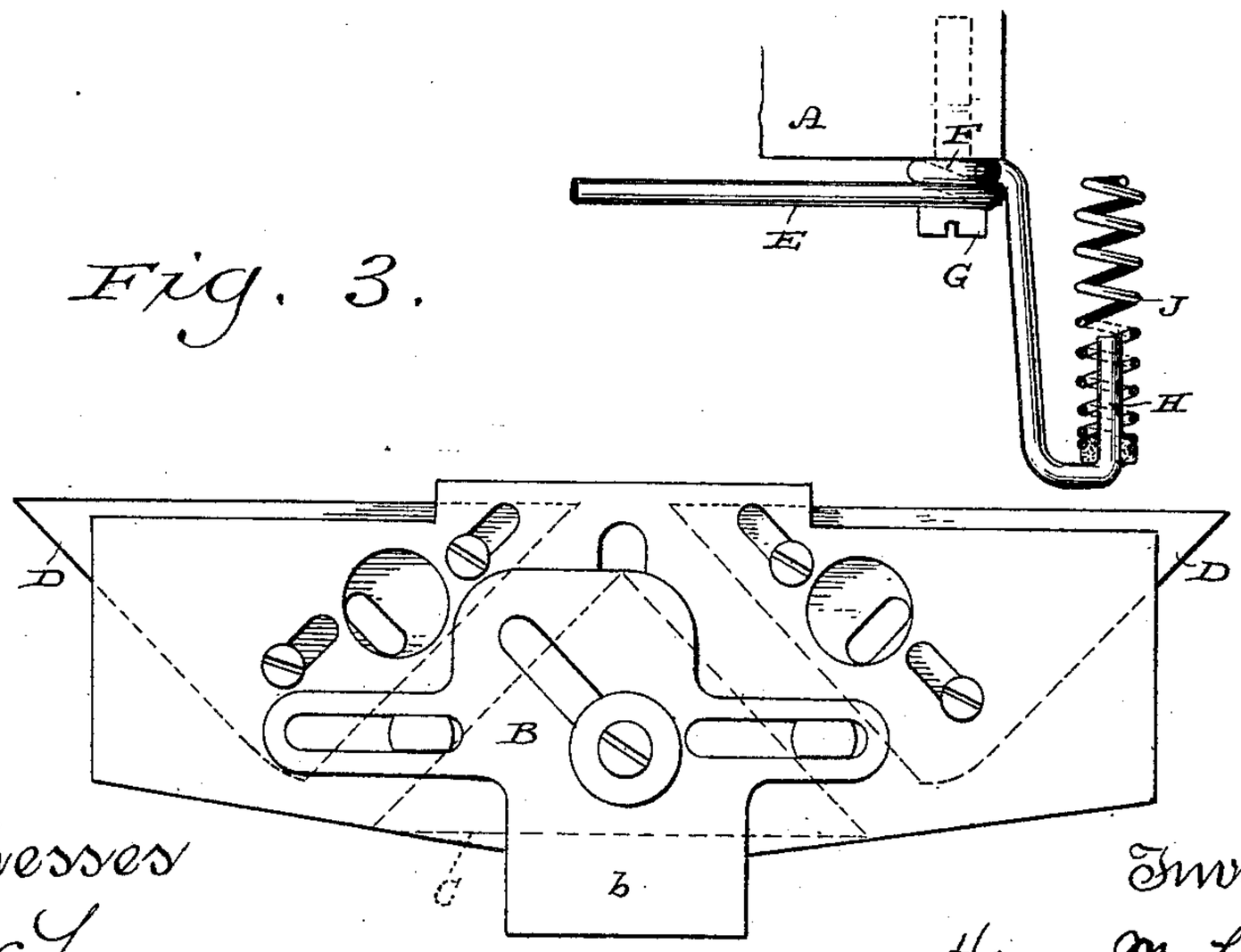

Fig. 3.

Witnesses
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UNITED STATES PATENT OFFICE.

HARRY M. LECTURE, OF MILWAUKEE, WISCONSIN.

YIELDING CAM-STOP FOR STRAIGHT-KNITTING MACHINES.

SPECIFICATION forming part of Letters Patent No. 436,982, dated September 23, 1890.

Application filed November 25, 1889. Serial No. 331,463. (No model.)

To all whom it may concern:

Be it known that I, HARRY M. LECTURE, of Milwaukee, in the county of Milwaukee, and in the State of Wisconsin, have invented certain new and useful Improvements in Yielding Cam-Stops for Straight-Knitting Machines; and I do hereby declare that the following is a full, clear, and exact description thereof.

My invention relates to cam-stops for knitting-machines; and it consists in certain peculiarities of construction and combination of parts, to be hereinafter described with reference to the accompanying drawings, and subsequently claimed.

In the drawings, Figure 1 is a perspective view of my cam-stop applied to a reciprocating knitting-machine. Fig. 2 is a plan of a cam-stop at one side of the machine; Fig. 3, a rear view of a set of cams such as are employed in a machine of the kind above named.

Referring by letter to the drawings, A represents the triangular frame of a reciprocating knitting-machine of the well-known Lamb type; B, the slide for actuating the central cam C of each set to open and close the space between it and the opposing cams D, said slide being provided with an extension *b* for impact against a stop at each end of said frame.

As illustrated in Figs. 1 and 2, a single piece of wire E is bent to form eyes F for engagement with screws G, employed to retain the ordinary cam-stops in place, and this wire is also bent at each end to extend a certain distance at right angles to the eyes and then back a certain distance approximately parallel to the outwardly-extended portions.

On the recurved portions H of the wire I solder or otherwise secure spiral springs J, the latter being of such length as to come in the path of the extensions *b* of the cam-slides B, above described.

While I have shown and prefer to use a wire E of such length that the eyes F and angular ends can be formed from one piece, it is obvious that so much of the wire as extends from eye to eye may be omitted without departing from the spirit of my invention.

The springs J form yielding stops for the cam-slides and take up the strain that would otherwise come upon the heads of the screws G, while at the same time the action of the machine is rendered less noisy than is the case when stops of the ordinary construction are employed, these latter being usually short pieces of metal incapable of yield, and consequently very liable to break from the constant pounding to which they are subjected, it being a frequent occurrence that either a cam-stop is broken or the head of its set-screw wrenched off, and the machine thus thrown out of service until repairs of a more or less expensive nature can be made. At the same time the springs aid the reciprocating throw of the cam-carriage, thereby effecting a saving in force necessary to the operation of the machine, and there is practically no wear or strain upon the cam-slides.

While I have shown and described the wire E and the spiral springs J secured thereto as the preferred construction, I do not wish to be understood as limiting myself thereto, as the springs may be otherwise held in place; or, instead of these springs, I may employ a buffer of rubber or other yielding material without departing from the spirit of my invention, the construction set forth being merely the most economical one of which I am aware for the purpose named.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A cam-stop for reciprocating knitting-machines, consisting of a wire and a yielding device supported by the wire, substantially as set forth.

2. A cam-stop for reciprocating knitting-machines, consisting of a wire bent to form an eye, then at right angles to the eye and then back a certain distance, and a yielding device arranged on the latter portion of the wire, substantially as set forth.

3. A cam-stop for reciprocating knitting-machines, consisting of a wire bent to form an eye, then at right angles to the eye and then back for a certain distance, and a spiral spring connected to the latter portion of the wire, substantially as set forth.

4. A cam-stop for reciprocating knitting-

machines, consisting of a wire bent to form two eyes, then at right angles to each eye and then back for a certain distance, and spiral springs connected to the bent-back portions of the wire, substantially as set forth.

In testimony that I claim the foregoing I have hereunto set my hand, at Milwaukee, in the county of Milwaukee and State of Wisconsin, in the presence of two witnesses.

HARRY M. LECTURE.

Witnesses:
N. E. OLIPHANT,
WM. KLUG.