

(No Model.)

C. W. KUTZ.

STOPPING DEVICE FOR KNITTING MACHINES.

No. 534,334.

Patented Feb. 19, 1895.

Fig. 1

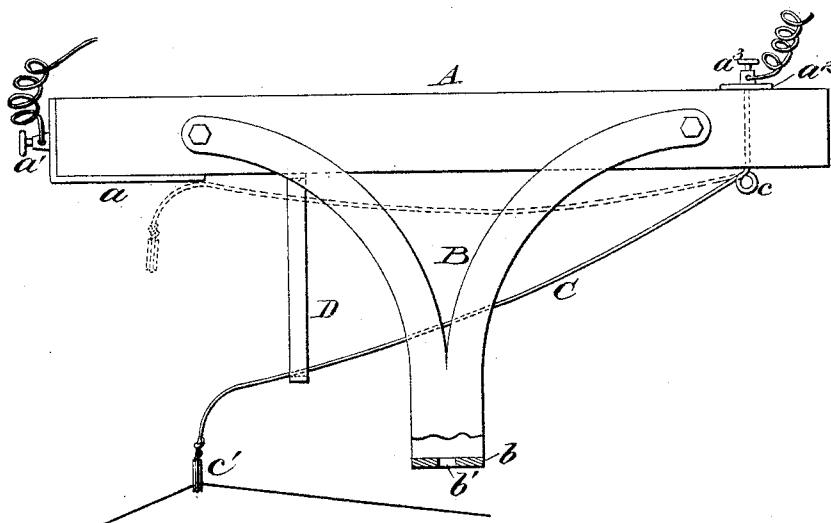
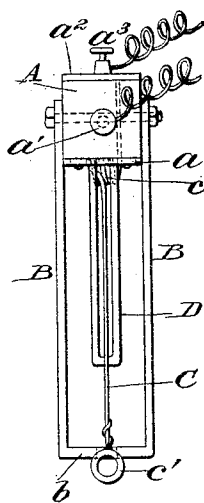


Fig. 2



Witnesses:

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UNITED STATES PATENT OFFICE.

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STOPPING DEVICE FOR KNITTING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 534,334, dated February 19, 1895.

Application filed March 31, 1894. Serial No. 505,858. (No model.)

To all whom it may concern:

Be it known that I, CHARLES W. KUTZ, a citizen of the United States, residing at Fleetwood, in the county of Berks and State of Pennsylvania, have invented certain new and useful Improvements in Stopping Devices for Knitting-Machines; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to a device for automatically stopping knitting machines, being intended to operate on the breaking of the yarn.

The invention will first be described in connection with the accompanying drawings, and particularly pointed out in the claim.

In the drawings—Figure 1 is a side elevation of my stopping device. Fig. 2 is an end view of the same.

Referring to the drawings, A is a supporting bar preferably of wood, rubber or other insulating material, to which is attached a pair of downward extending brackets B united at their lower ends by a guide plate *b* provided with a bolt hole *b'* for attachment to machine. To the supporting bar A is also attached a spring arm C, having a helical portion at *c* and provided with an eyelet *c'*. To hold the spring arm against lateral motion a slideway D is provided, being attached to the under side of the bar A. On the supporting bar, A, over the eyelet *c'* is fixed a contact plate *a*. This contact plate extends upward at one end and is provided with a binding post *a'*.

The spring arm C is inserted in the supporting bar A at one end as shown in dotted lines in Fig. 1, and is connected to a plate *a*² on the upper side of the said supporting bar, the plate *a*² being provided with a binding post *a*³.

In using my device the brackets B are attached to the carriage of the machine by a bolt passed through the bolt hole *b'*, and the yarn threaded through the eyelet *c'* at the free end of the spring *c*, from whence it passes to the yarn guide of the machine as usual.

It will be obvious, to those skilled in the art, that the tension of the yarn will keep the spring arm C out of contact with the contact plate *a*, but in case the yarn breaks the tension will be removed, and the resistance of the spring will cause it to fly upward and touch the contact plate *a*.

In order to cause the stoppage of the machine the binding posts *a'* and *a*³ are connected by wires to any suitable electro-magnetic belt-shifting device, a battery being in the circuit, of course, and energizing the electro-magnets of the belt-shifter upon the closing of the circuit by the spring arm C touching the plate *a*, whereby the belt is shifted and the machine stopped.

I have not described or shown an electro-magnetic belt-shifter herein, as any form of such mechanism may be employed in connection with my device.

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

In a stopping device for knitting machines and the like, the combination with a supporting bar of insulating material, a contact plate attached to one end thereof and provided with a binding post, a spring arm attached to the other end of said bar with its extremity passing through the bar and provided with a binding post on the opposite side thereof, the free end of said spring being provided with a yarn guide adapted to contact normally with said contact plate, a slideway secured to the supporting bar independently of the contact plate and adapted to guide the movements of the said spring arm, and brackets arranged on opposite sides of said supporting bar and spring arm and adapted to be secured to the carriage of the machine, substantially as set forth.

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

CHAS. W. KUTZ.

Witnesses:

SASSAMAN GEHRET,
SAMUEL LUBELSPERGES.