July 16, 1929. A. E. BEACHEN 1,721,291

STOPPING MECHANISM CONTROL

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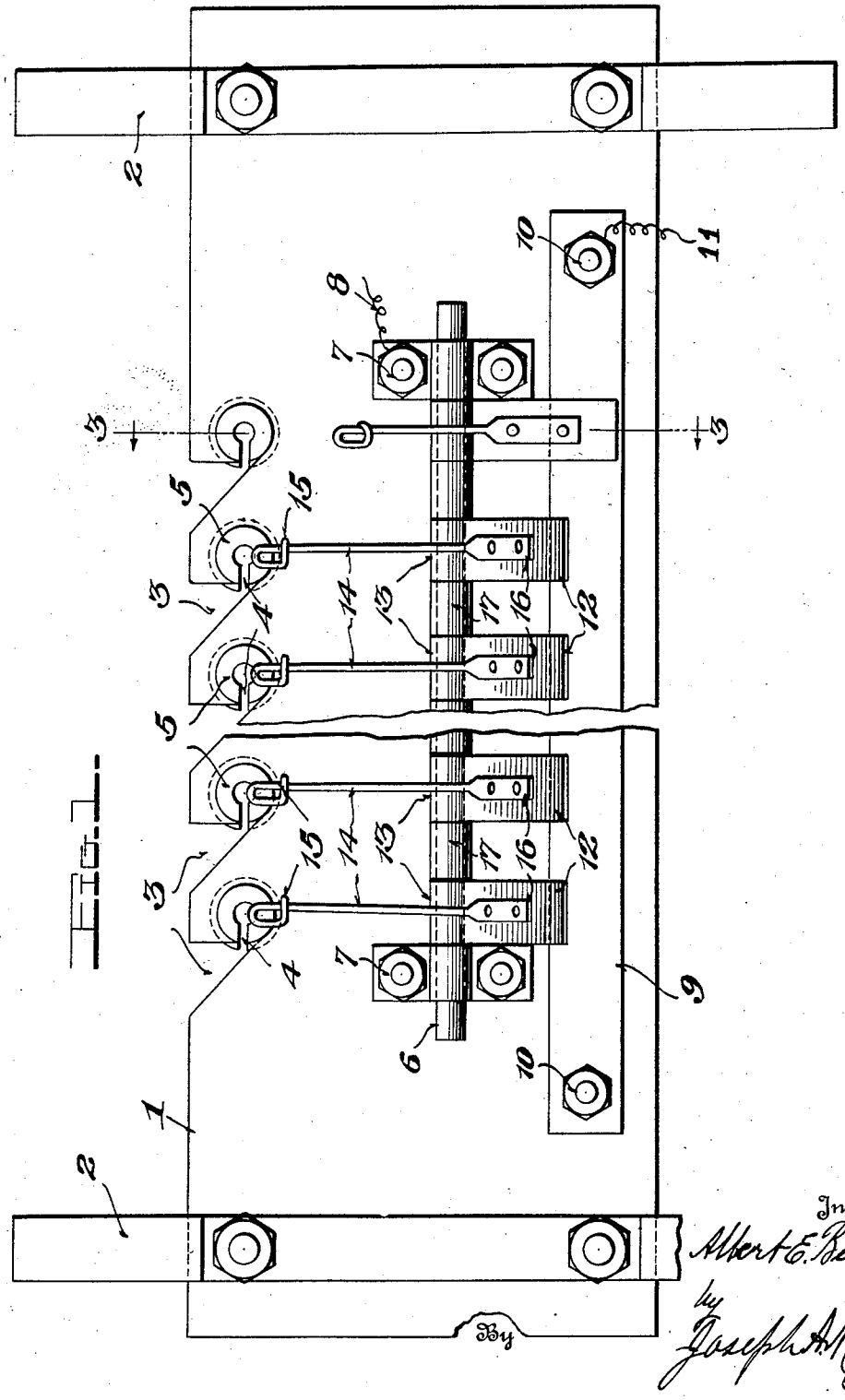


Fig. 1.

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Fig. 2

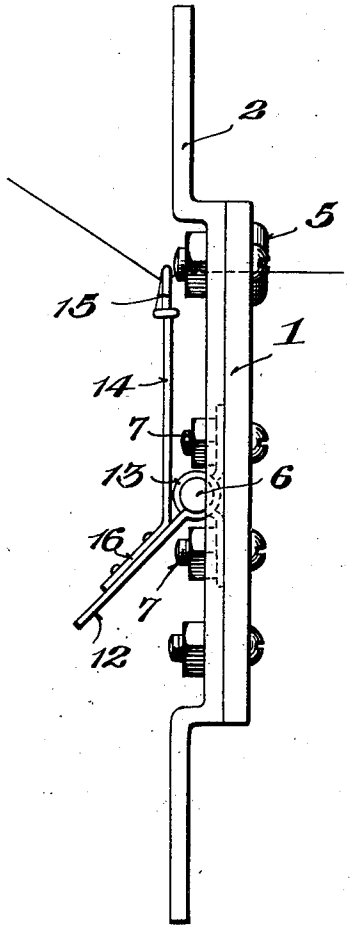


Fig. 3

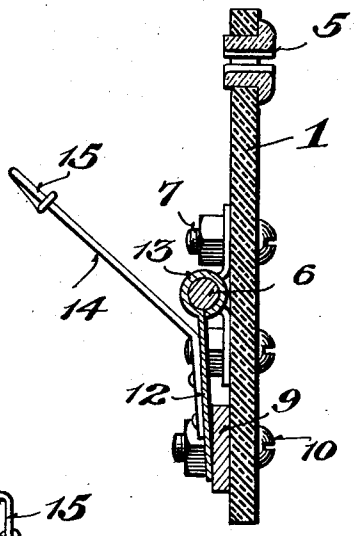
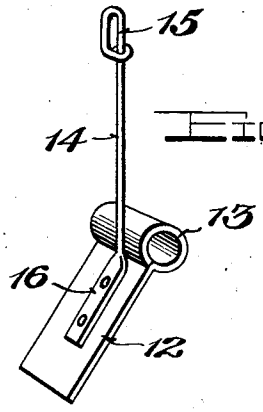


Fig. 4



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UNITED STATES PATENT OFFICE.

ALBERT E. BEACHEN, OF PROVIDENCE, RHODE ISLAND, ASSIGNOR TO EASTON & BURNHAM MACHINE CO., OF PAWTUCKET, RHODE ISLAND.

STOPPING-MECHANISM CONTROL.

Application filed July 3, 1928. Serial No. 290,119.

This invention relates to stopping mechanism controls and more particularly to control mechanisms of this type employed in connection with textile machines of varying types such as high speed warpers and the like used in the winding of yarn.

The primary object of the invention is to provide a mechanism of this type which embodies a single unit panel having a series of drop wires or the like, supported by a common carrier and operable to complete a circuit including the carrier and a bus bar also common to all of the wires through a suitable stop mechanism so as to stop the machine upon breaking of the yarn.

Further the invention aims to provide a mechanism wherein the yarn can be easily and quickly threaded.

Still further, the invention aims to provide a unit panel of simple and compact construction and one which can be easily applied to the textile machine.

In the drawings:—

Figure 1 is a front elevation of the invention;

Figure 2 is an end elevation;

Figure 3 is a section on line 3—3 of Fig. 1 and

Figure 4 is a detail perspective view of one of the drop wires and its contact plate.

In proceeding in accordance with the present invention, a panel 1, preferably of rectangular form, is employed and which may be equipped at its ends with attaching bars 2. The upper part of the panel is provided with substantially V-shaped cut outs 3 which extend through the upper edge thereof so as to enable the yarn to be easily and quickly inserted therein and then moved through lateral slots 4 into guide eyes 5, preferably of porcelain. A horizontal rod 6 is mounted by means of brackets 7 on the panel below the guide eyes and has a circuit wire 8 connected thereto.

A horizontal bus bar 9 is connected by means of bolts 10 to the panel and underlies the rod 6 and likewise has a circuit wire 11 connected thereto. The wires 8 and 11 are adapted to be included in a circuit, which latter includes a stopping mechanism, not shown.

The rod 6 is common to and provides a pivotal mounting for a series of contact plates 12 which latter at one end are formed with eyes 13 embracing and pivoted to the rod and which have their opposite ends formed to engage the bus bar 9.

Drop wires 14 have thread-engaging eyes 15 at their upper ends which eyes cooperate with the guide eyes 5 and receive the yarn. The lower ends of the drop wires are off set or turned at an angle at 16 and are secured to the contact plates 12 so that the yarn will normally hold the plates in the position of Figure 2, out of contact with the bus bar 9.

In operation, the contact plates, as depicted in Fig. 2 are held out of contact with the bus bar, and upon breakage of the yarn, the latter releases same, and the plates responding to the action of gravity, drop to down position of Figure 3 thus closing the circuit through the stopping mechanism and effecting stoppage of the machine.

It is particularly to be noted that both the bus bar and the rod are common to all of the drop wires and contact plates, thus providing a simple and economical structure.

Preferably the panel is formed of insulating material and the eyes 13 of the contact bars are held spaced by sleeves 17 mounted on the bar.

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

1. In a device of the type set forth, a panel having substantially V-shaped cut-outs extending through its top edge and having guide eyes to one side of the cutouts and communicating therewith by lateral slots, a horizontal rod connected at its ends to the panel and disposed below the guide eyes, a horizontal bus bar located below the rod, vertical contact plates journaled at one end on the rod and having their opposite ends formed to engage the bus bar, drop wires having thread eyes at their upper ends disposed adjacent the respective guide eyes and having their lower ends turned at an angle and secured to the contact plates so as to normally hold the plates at an angle to the panel, and circuit wires connected to the bar and rod.

2. In a device of the type set forth, a panel having substantially V-shaped cut-outs extending through its top edge and having guide eyes to one side of the cutouts and communicating therewith by lateral slots, a horizontal rod connected to the panel and disposed below the guide eyes, a bus bar located

below the rod, contact plates journaled on the rod and formed to engage the bar, and drop wires having thread eyes for cooperation with the guide eyes, and means to secure said drop wires to the plates so as to normally hold the latter spaced from the bar, said bar and rod being formed to be included in an electric circuit.

3. A unitary stopping mechanism control attachment for textile machines, composed of a panel having thread receiving guides at its upper side, a horizontal rod connected to the panel and disposed below the guides, a bus bar connected to the panel and located below the rod, contact plates journaled on the rod and formed to engage the bar, drop wires having thread eyes for coperation with said thread guides, attaching members on the panel for enabling same to be bodily attached as a unit to a textile machine, and means to connect electric circuit wires to said rod and to said bar.

4. A unitary stopping mechanism control attachment for textile machines, composed of a panel formed of insulating material having thread receiving guides at its upper side, a horizontal rod connected to the panel and disposed below the guides, a bus bar connected to the panel and located below the rod, contact plates journaled on the rod and formed to engage the bar, drop wires having thread eyes for cooperation with said thread guides, attaching members on the panel for enabling same to be bodily attached as a unit to a textile machine, and means to connect electric circuit wires to said rod and to said bar.

In testimony whereof I have signed my name to this specification.

ALBERT E. BEACHEN.