

C. L. BRALEY AND C. E. WAREAM.

CHAIN CONVEYER.

APPLICATION FILED JUNE 22, 1917. RENEWED JAN. 22, 1920.

1,350,774.

Patented Aug. 24, 1920.

2 SHEETS—SHEET 1.

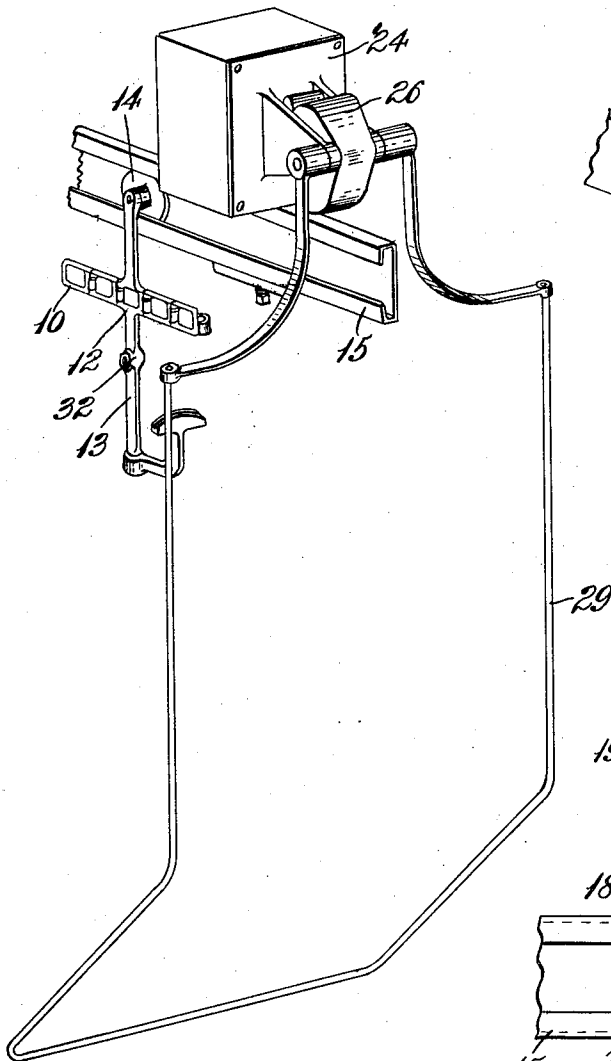


Fig. 1.

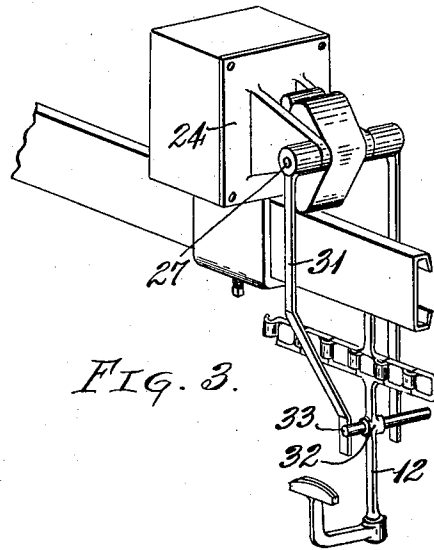


Fig. 3.

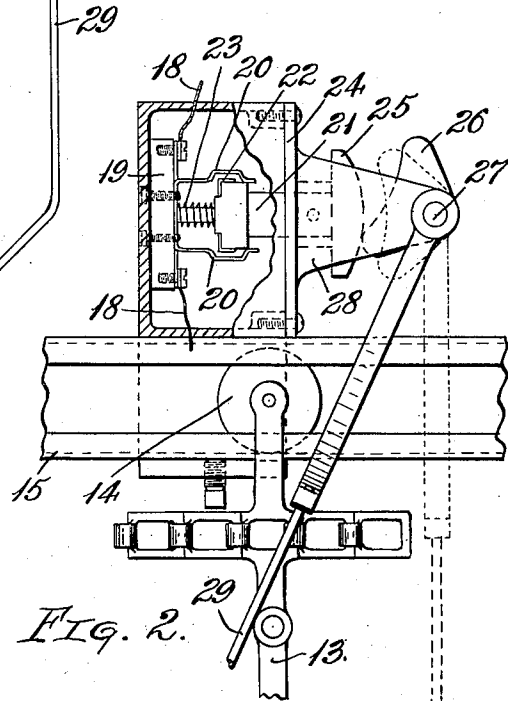


Fig. 2.

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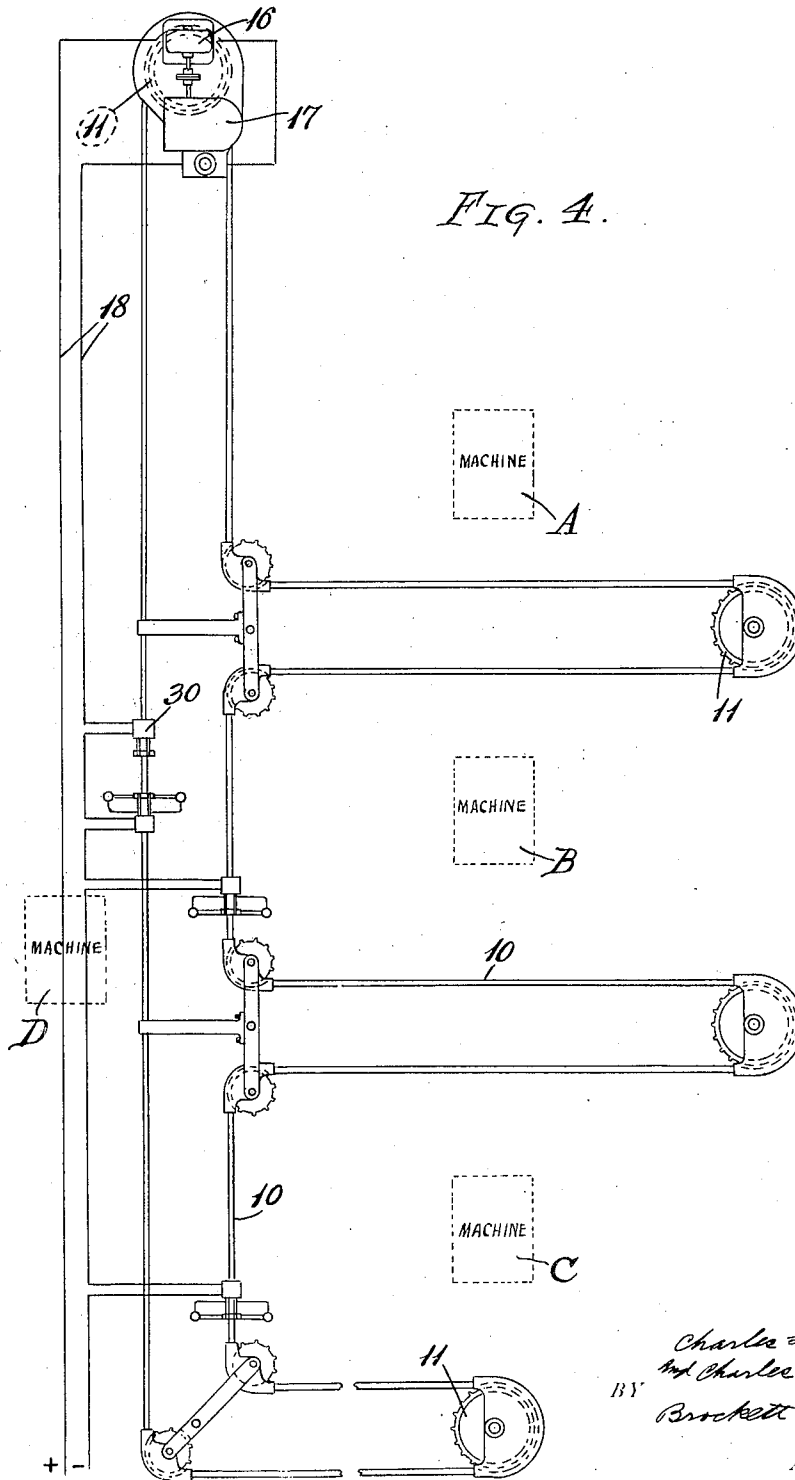
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UNITED STATES PATENT OFFICE.

CHARLES L. BRALEY AND CHARLES E. WAREAM, OF CINCINNATI, OHIO, ASSIGNORS
TO THE AMERICAN LAUNDRY MACHINERY COMPANY, OF NORWOOD, OHIO, A COR-
PORATION OF OHIO.

CHAIN CONVEYER.

1,350,774.

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To all whom it may concern:

Be it known that we, CHARLES L. BRALEY and CHARLES E. WAREAM, citizens of the United States, residing at Cincinnati, in the county of Hamilton, and State of Ohio, have invented certain new and useful Improvements in Chain Conveyers, of which the following is a specification.

This invention relates to chain conveyers for carrying garments and more particularly to the control devices therefor. The object of the invention is to provide an improved chain conveyer embodying means for stopping it controlled or operated by the garment itself, so that garment carrying supports on said conveyer will pass the stopping device if no garments are carried by said supports, but the presence of a garment thereon will actuate the stopping device to halt the conveyer until the garment is removed.

Further objects of the invention are in part obvious and in part will appear more in detail hereinafter.

The invention comprises the construction and arrangement of parts hereinafter described and claimed.

In the drawings, Figure 1 represents a perspective view illustrating a portion of the conveyer and its support and a stopping device for said conveyer controlled by the garment; Fig. 2 is a side elevation broken out to expose the switch and in full lines showing said switch open; Fig. 3 is a view corresponding to Fig. 1 and illustrating a stopping device adapted to be actuated at the end of a batch; and Fig. 4 is a diagrammatic plan view of a complete system embodying the invention.

Chain conveyers are frequently used for conveying articles, such as collars, cuffs, shirts and the like through dry rooms. The present invention adapts such conveyers for other uses, for example for conveying garments or other articles which are to be subjected to several different operations to and past the several machines at which those operations are to be performed. A shirt to be ironed could therefore be conducted in turn to the several machines for ironing the cuffs, neck-band, yoke and bosom; a coat or other garment to be pressed could be conducted in turn to several different machines

specially adapted to press certain portions or areas of the coat, and so on.

Referring to Fig. 4 of the drawings A, B, C and D represent four such different machines for performing different operations upon the same article. The structure of these machines is not essential and forms no part of this invention.

10 indicates the conveyer, which is of endless chain form, as shown in Fig. 1, and passes over a series of sprocket wheels 11 so located as to lead the conveyer past the several machines in order and at a position most convenient to the operators. At regular intervals certain links 12 of said chain are provided with bar extensions 13 whose upper ends carry rollers 14 traveling in the channel guide 15 and whose lower ends carry hooks or supports to receive garments or other articles or hangers (not shown) on which they are hung.

16 indicates the driving motor, which may be of any suitable type, and is shown as an electric motor coupled by gearing in the casing 17 to one of the sprockets 11. 18 indicates the circuit leads to said motor connecting it with a suitable source of current.

Adjacent each machine, on at least such machines as may require it, is located a suitable device for stopping the conveyer, the particular devices shown for this purpose comprising electric switches in series in the leads to the operating motor. As shown in Fig. 2 each switch comprises an insulated base 19 on which are mounted two spring contacts 20 connected to the leads 18. The circuit across said contacts is closed by a button or plunger 21 formed of insulating material and carrying a conducting ring contact 22. A compression spring 23 normally holds said plunger outwardly with the contact 22 completing the circuit across the contacts 20.

Each plunger 21 projects outwardly beyond the casing 24 inclosing its switch and is provided with a rounded head 25 adapted to be actuated by movement in either direction of a pivoted cam member 26 carried by a shaft 27 pivoted in brackets 28 on the casing. This shaft supports a suitable member, shown as a large wire bail 29 which projects into the path of movement with the conveyer of an article carried thereby. The particu-

lar bail shown depends from the shaft, surrounds the conveyer and extends some distance below it. Consequently any chain hook member 12 which is unoccupied will pass through said bail without affecting the switch, but a garment or other article carried by any hook member 12 will engage said bail as the conveyer moves along and by oscillating shaft 27 will open the switch and break the circuit to the motor, thereby stopping the conveyer.

With this arrangement the conveyer can not get ahead of the operators. In other words, if the conveyer is moving at a rate such that it delivers articles to an operator faster than she can operate upon them and return them to the conveyer the conveyer is halted by the oncoming article and will not advance until the next article is removed therefrom.

No stopping device is required at the first station, for example station A, when the operator takes the article from a pile, operates on them and hangs them upon the conveyer, but stopping devices are used at all other stations, if desired.

30, Fig. 4, indicates an additional stopping device for use in stopping the conveyer at the end of each batch of articles. This device is shown in detail in Fig. 3. The shaft 27 is provided with depending arms 31 which extend down alongside the bars 12, each of which is provided with a sleeve portion 32. After the last one of a given batch of articles has been hung upon the conveyer a loose pin 33 is inserted in the next bar 12. This pin will pass all of the stopping devices at the several machines without affecting them but will engage the arms 31 at the last switch and stop the conveyer. The operator at this point, who is presumed to be piling up or packing the finished articles as they come to him knows that the batch is

complete, and after removing the pin 33 to allow the conveyer to proceed begins packing or piling the next batch.

What we claim is:

1. In combination, an endless conveyer adapted to travel past a series of working stations and provided with a plurality of article carrying supports, driving means therefor, and means at each of said stations constructed and arranged to be actuated by articles on said supports and adapted when actuated to stop the movement of said conveyer.

2. In combination, an endless conveyer adapted to travel past a series of working stations and provided with a plurality of article carrying supports, an electric motor for operating said conveyer, and a series of switches located one at each of said stations, each of said switches being in a circuit controlling said motor, said switches being also constructed and arranged to be actuated by articles on said supports, whereby an article arriving at any one of said stations actuates one of said switches to thereby stop the movement of said conveyer.

3. In combination, an endless conveyer adapted to travel past a series of working stations and provided with a plurality of article carrying supports, an electric motor for operating said conveyer, an electric circuit for said motor, and a set of switches in series in said circuit, each of said switches being constructed and arranged to be actuated by articles on said supports, whereby an article arriving at any one of said stations will actuate a switch and thereby stop the movement of said conveyer and said conveyer will not advance unless all of said switches are closed.

In testimony whereof we affix our signatures.

CHARLES L. BRALEY.
CHARLES E. WAREAM.