

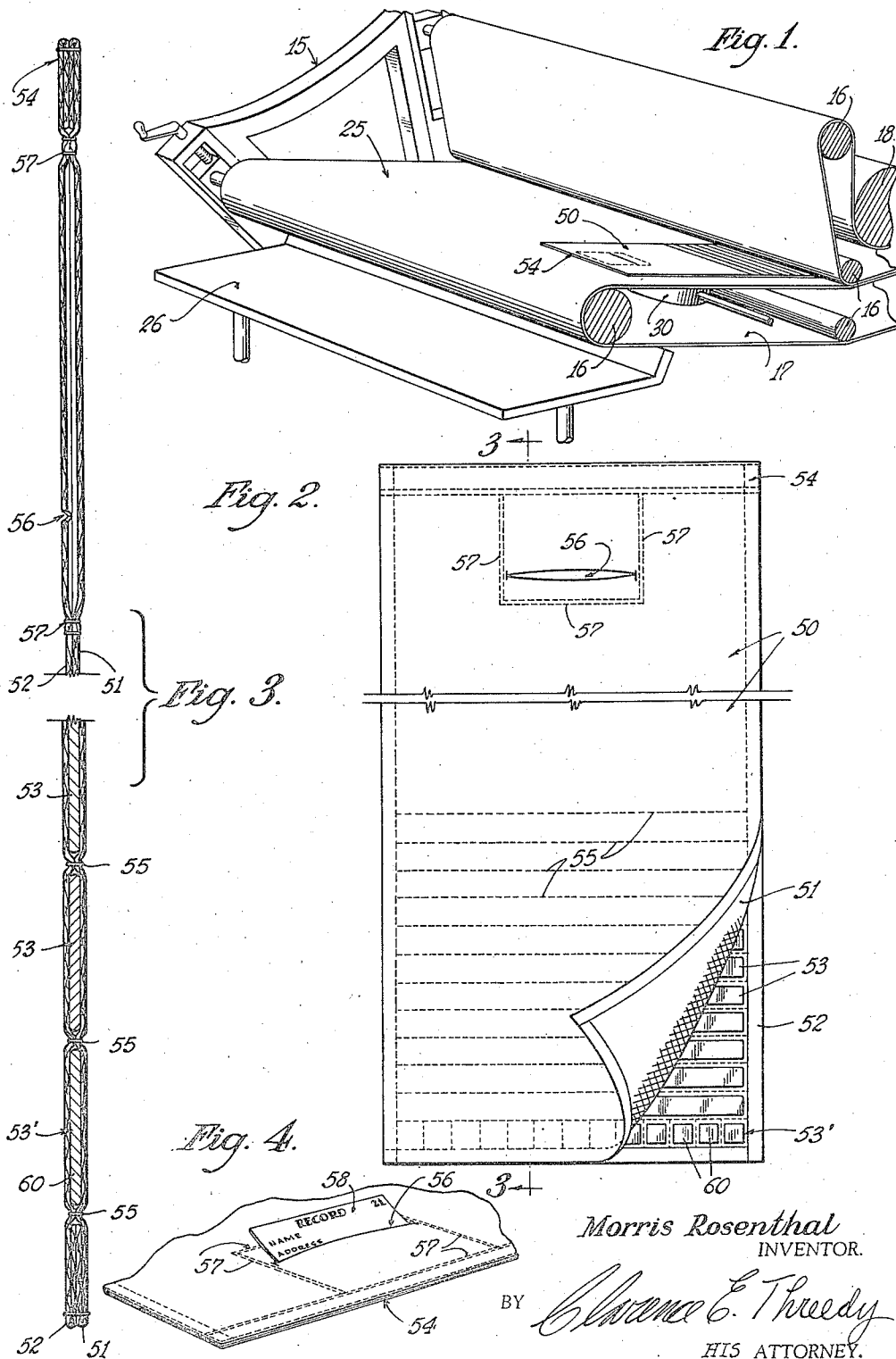
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STOP MARKER FOR CONVEYERS

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STOP MARKER FOR CONVEYERS

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4 Claims. (Cl. 38—1)

This invention pertains broadly to conveying devices, and more particularly to a form of stop adapted for use with conveyers having automatic control means operable by an object carried by the conveyer.

An object of this invention is the provision of a marker adapted to be placed upon a conveyor to follow or precede a batch of articles for purposes of counting, identification and segregation from other objects fed to the conveyor.

Another object is the provision of a marker adapted not only to identify articles as aforesaid, but also provided with means for actuating automatic control mechanism whereby the conveyer may be started and stopped dependent upon the absence or the presence of the marker along the conveying path.

Another object is the provision of a marker for use with automatic ironing machines of the type having a conveying web movable relative to a series of ironing rollers, the marker being in the form of a substantially flat fabric member having a plurality of control actuating elements secured thereto, the control elements being arranged to provide a degree of flexibility for the marker so that the same may easily negotiate the several ironing rollers.

Still another object is the provision of a marker for use with laundry ironing machines having automatic control means including a magnetic member actuated by the presence of a magnetically attractable substance, said marker including a plurality of substantially rigid, magnetically attractable elements arranged between the folds of a fabric and in spaced relation to each other so as to flex along lines transverse to the normal path of movement of the marker on the conveyer.

Another object is a marker for use with ironing machines including a conveyer web and a plurality of transverse ironing rollers, the marker including a pair of fabric members sewn or otherwise secured together and having a pocket or like means arranged therein to receive an identification member, together with a plurality of elongated, magnetically attractable members arranged in parallel spaced relation between the fabric members and each secured in pockets formed in the latter such that the portion of the marker in which the magnetically attractable members are disposed will be flexible along lines parallel with the members and such that the marker may flex in its movement relative to said ironing rollers.

Other objects and novel aspects of the invention reside in certain details of form, location and

operation of the arrangement hereinafter described in view of the drawing, in which:

Fig. 1 is a perspective view of the discharge end of an ironing conveyer with which the novel marker may be used;

Fig. 2 is a top plan view of the marker;

Fig. 3 is an enlarged section along line 3—3 of the marker of Fig. 2; while

Fig. 4 is a fragmentary perspective of the identification-receiving means or pocket.

The present invention is in part a continuation of the invention shown and claimed in my copending United States application, Serial No. 202,283, filed of even date herewith, the improvements herein relating particularly to the actuating means or marker for use with an automatic control device of the generic class described in the aforesaid copending application.

Referring to Fig. 1, the device of the present invention is adapted particularly for use with conveyer devices in general, and especially those employed in laundry ironing machines such as described in the aforesaid copending application, such a machine desirably, though not necessarily, including a plurality of guide and ironing rollers 16 and 18 journaled in frame means 15 and arranged to drive and guide a conveying web 17 by motor means (not shown) controlled by an automatic device 30 such as described in detail in the aforesaid copending application.

The automatic control device 30 is of a type adapted to be operated by an article carried by the conveying web, said article being provided with means for affecting an element in the control mechanism in a particular manner not accomplished ordinarily by other objects or articles carried by the conveyer.

For example, the control device 30 may include a magnetic element arranged to actuate a switch for the purpose of controlling the drive means for the roller and conveying mechanism of the machine with which it is associated, the control device being actuated by a magnetically attractable substance carried by the conveyer.

In the illustrative embodiment shown in Fig. 1, the ironing machine is supplied with laundered articles at its receiving or feed end (not shown) toward the extreme right of the discharge end of the machine as seen in Fig. 1, there being a discharge table 26 onto which the ironed articles are delivered by the conveyer webbing 17 after such articles have been passed over and around a plurality of heated ironing rollers arranged similarly to the rollers 16, 18, etc. The finished or discharged articles finally ride onto an upwardly

inclined discharge portion 25 of the webbing 17 just above the table 26, and the control device 30 is arranged beneath the portion 25 of the webbing close to one side thereof, so that articles carried on the webbing at that particular side will be moved closely over the control device.

The articles to be ironed are preferably fed into the ironing machine in batches, each batch being kept separate from the other, and as the last articles of each batch are fed into the ironing machine by an attendant at the feeding end, a segregating marker in the form of a flat, flexible member shaped like a pad is fed into the machine so that the attendant at the discharge end is apprised, upon appearance of the marker at his end, of the fact that the last articles of a particular batch have been received.

In addition, the marker such as described above is provided with magnetically attractable means arranged in the marker to provide a degree of flexibility for the latter and effective when the marker passes over the control device 30 to actuate the magnetic control means therein so as to stop the ironing machine substantially at the time the last articles of the batch immediately preceding the marker are delivered onto the discharge table 26.

In Fig. 2, I show a preferred form of construction of a marker adapted to accomplish the foregoing objects, the marker comprising a pair of elongated rectangular fabric members 51 and 52 provided with suitable hems around their marginal edge portions and secured together along these edge portions by any means such as stitching, cementing, or the like.

Control actuating means in the form of a plurality of elongated members 53 are disposed in spaced parallel relation between the top and bottom folds or members 51 and 52 of the marker, and the marginal edge portions are secured together as aforesaid to form a unitary marker generally indicated at 50, the marker being flexible along parallel lines transverse to the length thereof, the marker being intended to be fed into the ironing machine with its head portion 54 foremost.

Desirably, the space between the several control elements 53 is stitched as at 55 so as to segregate the several elements without destroying the lateral flexibility of the marker.

Near the upper end or head portion 54 of the marker, there is provided means for affixing or carrying an identification element, such means in the present instance being in the form of a pocket 56 formed by a suitable slit substantially flanked by stitching 57 between the top and bottom fabric members 51 and 52. This pocket 56 is adapted to receive a card or tag 58 (Fig. 4) identifying the batch or articles of laundry which follow or precede the marker through the conveying means.

In the present instance, the control elements 53 are desirably in the form of rigid, elongated bars of iron or other highly permeable, paramagnetic material, each bar being slipped into a pocket extending transversely across the marker 50 and formed by the parallel stitching 55.

If desired, the elements 53 may include a plurality of small sections or squares 60 of iron or like material, as illustrated by the form of the bottom-most row 53' of magnetic elements seen in Fig. 2. In such a case, it will appear that the marker may flex both laterally and longitudinally in the region of the control elements, and cross stitching similar to the stitching 55 may be pro-

vided between confronting edge portions of the several magnetically attractable elements 60.

Also, the magnetic insert may be in the form of relatively thin sheet iron or a plurality of thin sheets or laminations, or, if desired, iron filings may be secured in the marker to provide the magnetically attractable actuating means.

In operation, as the last or preceding articles of a particular batch are fed into the ironer or other conveying machine, a marker 50 is inserted with its head portion 54 foremost and an identification card 58 in the pocket 56, the marker being placed on that side of the machine at which the control device 30 is situated. As the marker moves over the control device 30, the magnetically attractable elements 53 affect a magnetic control element in the device 30 for the purpose of stopping the machine, this latter action occurring preferably (depending upon adjustment of the control mechanism 30) substantially at the time the head portion 54 of the marker moves onto the discharge table 26. The attendant at the discharge end when preceding lot is finished, then removes the identification card 58 and places the same on record with the batch which is following or preceding the marker. The marker is then removed from the conveyer webbing 17, thereby starting the ironer or conveyer, and is returned by any convenient means to the feeding end of the machine for re-use.

It will thus appear that the invention provides a simple marker for use in conveying machines and the like, and one which is inexpensive to manufacture, relatively sturdy, and wear-resisting. Moreover, the marker is of a type adapted to carry identification means with it as well as means for actuating automatic control mechanism, the marker, however, being useful by virtue of its construction and identification carrying means, apart from the control operating feature heretofore described and characterizing the marker.

Since various modifications may be made in the illustrative embodiment to accomplish the objects heretofore recited without departing from the spirit of the invention, it is to be understood that the appended claims include all modifications and changes in form, location, or mode of operation of the preferred embodiment set forth herein.

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

1. A marker for use with devices of the class described, said marker being shaped like a pad and having a plurality of substantially rigid paramagnetic elements arranged in parallel spaced relation in the plane of said marker, and means on said marker for receiving removable identification means adapted to identify articles following or preceding said marker in a conveyer system.

2. A marker in the form of a pad constructed from a pair of flexible fabric members secured together with a plurality of elongated magnetically attractable elements arranged in spaced parallel relation substantially in the plane of the marker, said marker being flexible in the region of said elements along the lines of parallelism therebetween, and a pocket formed in said marker and adapted to receive an identification means for movement with the marker in a conveyer system operably controlled by said elements.

3. A marker for the purpose set forth, said marker comprising opposite fabric portions hav-

ing a plurality of paramagnetic elements arranged in parallelism therebetween with means securing said opposite fabric portions together between adjoining paramagnetic elements such
5 that the latter are segregated in a plurality of pockets, said fabric portions being secured together to confine said paramagnetic elements in said pockets, and means on said marker for receiving identification means to be carried with
10 the marker in a conveying system which said paramagnetic elements are adapted to control responsive to movement of the marker in said conveying system.

4. A stop marker for use with ironing machines employing a conveyer web adapted to bear against an ironing roller and equipped with a stopping control adapted to be actuated by the presence on said web of a magneto-conductive substance,
5 said marker comprising a pad of yieldable material arranged and constructed to be moved by said conveyer web between the latter and an ironing roller, said pad having confined within
10 its body a magneto-conductive material.

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