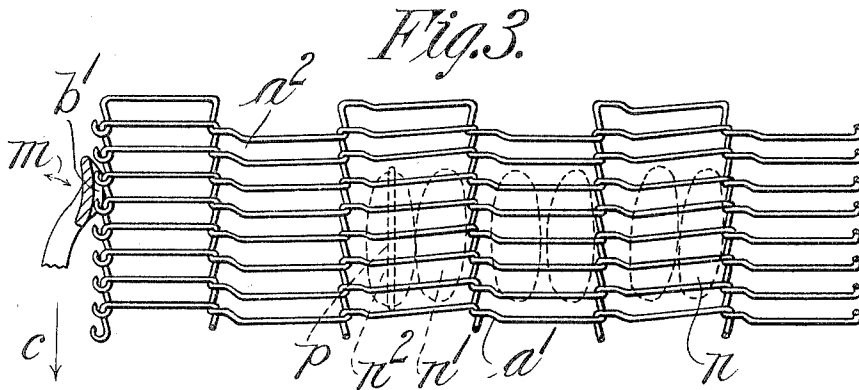
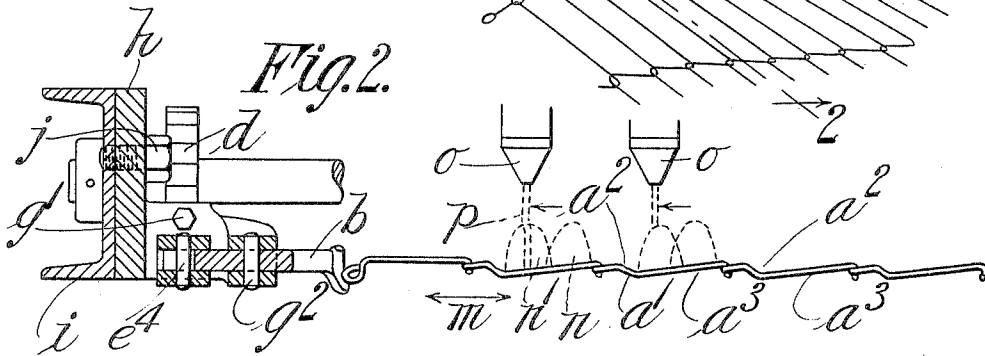
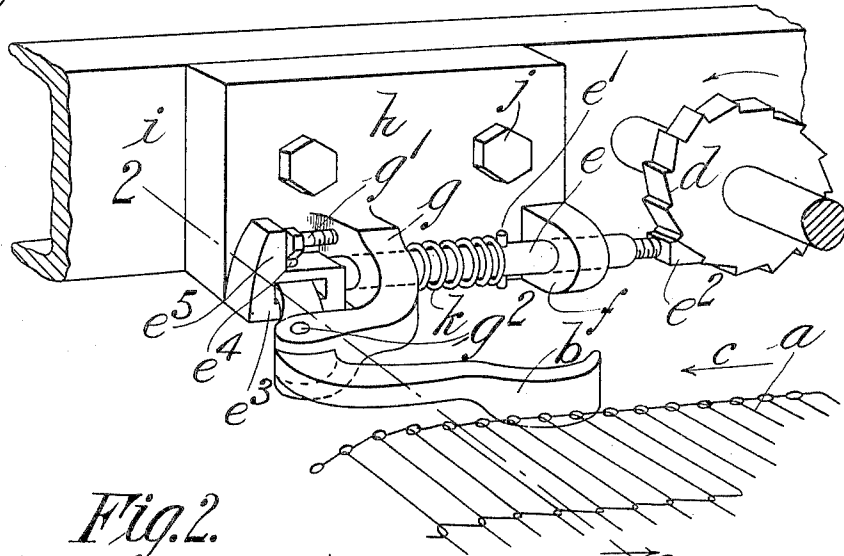


T. & D. KIHLGREN.
 APRON FOR CONFECTIONERY MACHINERY.
 APPLICATION FILED APR. 18, 1910.

1,009,670.

Patented Nov. 21, 1911.

Fig. 1.



WITNESSES:

H. L. Sprague
Harry W. Bowen

INVENTORS:-

Theodor Kihlgren
David Kihlgren
 BY *Chapin & Co.*
 ATTORNEY.

UNITED STATES PATENT OFFICE.

THEODOR KIHLGREN AND DAVID KIHLGREN, OF SPRINGFIELD, MASSACHUSETTS.

APRON FOR CONFECTIONERY MACHINERY.

1,009,670.

Specification of Letters Patent.

Patented Nov. 21, 1911.

Original application filed March 26, 1909, Serial No. 485,894. Divided and this application filed April 18, 1910. Serial No. 556,130.

To all whom it may concern:

Be it known that we, THEODOR KIHLGREN and DAVID KIHLGREN, citizens of the United States of America, residing at Springfield, in the county of Hampden and State of Massachusetts, have invented new and useful Improvements in Aprons for Confectionery Machinery, of which the following is a specification.

Our invention relates to improvements in machines for the manufacture of confectionery in which the chocolates or other confections are carried, during the coating process, on a horizontally moving apron.

The present application is a division of our application filed March 26, 1909 under Serial Number 485,894, the claims in said application being drawn on the means for imparting a vibratory motion to the conveyor-belt, while the claims in this application are limited to the belt structure.

After this coating process has been completed, it is the common practice to decorate or apply to the confection a string or ridge-shaped layer of chocolate, which operation has usually been performed by hand.

Our present invention particularly relates to a channeled apron construction whereby the confections will all receive the decoration of chocolate or other material as the apron passes beneath a receptacle from which a stream of chocolate or other material is flowing.

The invention is designed to be employed in connection with the construction shown, described, and claimed in an application filed by us on March 26, 1909 under Serial No. 485,894 for improvements in "Apron for confectionery machinery".

In the drawings forming part of this application,—Figure 1 is a perspective view of the apron-vibrating mechanism showing a portion of the chocolate-receiving apron. Fig. 2 is a side elevation of the same with the shaker lever in section on the line 2—2 of Fig. 1. Fig. 3 is a plan view of the apron in detail.

In order that the present invention may be fully understood, we have deemed it necessary to describe the means by which the belt or apron is agitated or vibrated, which means, as stated above, are claimed in the parent application above referred to.

Referring to the drawings in detail, wherein the same reference characters indi-

cate the same construction, *a* designates the apron proper; *b* designates a shaker-lever having a curved or bent end *b*¹ engaging, intermittently, the side or edge of the apron as the same is moved in the direction of the arrow *c* by any suitable mechanism, not shown. The lever *b* is operated by means of a suitably driven ratchet-wheel *d* acting upon a rod *e* slidably supported in the lugs *f* and *g* which are a part of the piece *h* which is bolted to a frame-member *i*, as shown at *j*. The rod *e* is normally pressed toward the wheel *d* by means of the coiled spring *k* acting on the pin *e*¹ and the lug *g*.

The end of the rod *e* is provided with a wedge-shaped end *e*² with which the teeth of the ratchet-wheel *d* engage.

*e*³ indicates a right-angular shaped piece which is attached to the outer end of the rod *e* and to which the shaker-lever *b* is pivoted, as shown at *e*⁴. The part *e*⁵ is for the purpose of engaging the adjustable stop *g*¹ for limiting the throw of the shaker lever *b*, which is pivoted to the lug *g* at *g*². It is therefore obvious that when the ratchet-wheel *d* is rotated, its teeth, acting on the rod *e*, will reciprocate the same against the tension of the spring *k*, and will, in turn, impart a shaking or vibratory motion to the traveling confectionery receiving apron *a*, as shown by the arrow *m* in Fig. 3.

Referring now to the construction of the apron *a*: It will be noticed that the individual bars or wires thereof are formed with a bent or inclined portion *a*¹ whereby the upper longitudinal surface of the apron is provided with a channel portion *a*². By reason of the transversely inclined portion *a*¹ in the wires of the apron there is formed a channel *a*² with the longer transversely inclined portion *a*³ down which inclined portion the confections, shown in dotted lines, will slide into contact with the inclined or bent portion *a*¹. This sliding or alining action of the confections is brought about by means of the action of the shaker-lever *b* striking an intermittent blow on the edge of the apron *a*, during its longitudinal movement, as readily understood.

n designates the first position of the confection when placed on the apron, and *n*² its second position after the sliding action downward on the part *a*³ and against the bent portion *a*¹ of the wires.

o designates a suitable receptacle for con-

taining the liquid chocolate for applying the decorated string or layer of the material as the confections are moved under this receptacle. This layer or string of the chocolate is applied, as shown at *p*, and as all of the confections will be automatically moved into line with the stream of flowing chocolate, each confection will, in turn, be decorated as it passes under the receptacle *o*.

Each element of the apron, it will be noticed, is substantially zigzag in shape in plan view, with the transversely arranged channel portion *a*² located between the bends of the wire.

What we claim, is:—

1. An apron for chocolate machines consisting of zigzag elements connected together and each having transversely arranged inclined portions, each element being provided with a plurality of inclined portions extending through the greater portion of its length whereby when the inclined portions of each element are arranged in longitudinal alignment in the finished apron an inclined channel surface is produced down which the confections may slide transversely to the line of movement of the apron.

2. An articulated apron for alining confections comprising a plurality of zigzag shaped wire elements interlocked together, each element having a downwardly inclined bent portion intermediate the interlocked points of the wire elements and terminating in a short, upwardly bent portion adjacent the interlocked portions, whereby the finished apron is provided with a longitudinally arranged channeled upper surface to permit the confection to slide downward in a direction transverse to the line of travel of the apron and into engagement with the short, upward bent portion of the elements.

3. A confection alining apron consisting of wire elements connected together, the upper receiving surface of the apron being formed with an inclined and a shouldered portion in each wire element to allow the confection to slide on the inclined portion against the shouldered portion and transversely to the line of motion of the apron.

THEODOR KIH LGREN.
DAVID KIH LGREN.

Witnesses:

K. I. CLEMONS,
HARRY W. BOWEN.