Aug. 12, 1930. R. A. HAYWARD 1,772,484

PAPER MAKING MACHINE

Filed Aug. 17, 1928

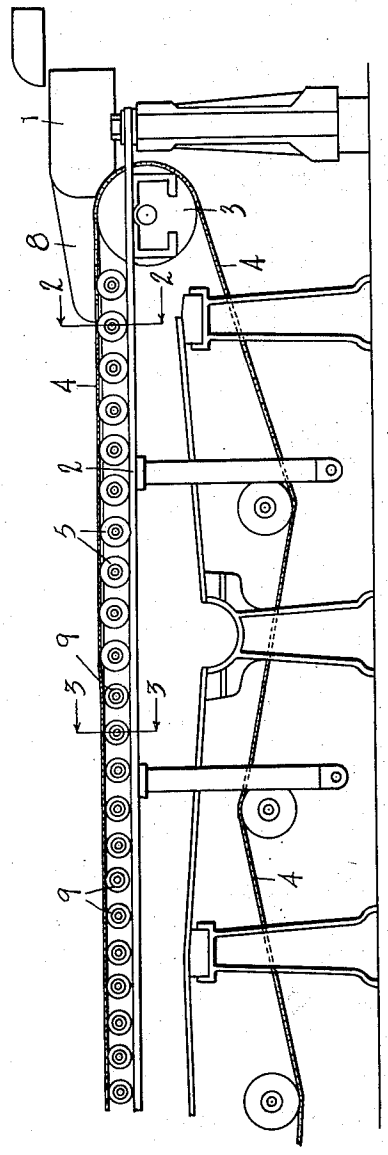


Fig. 1

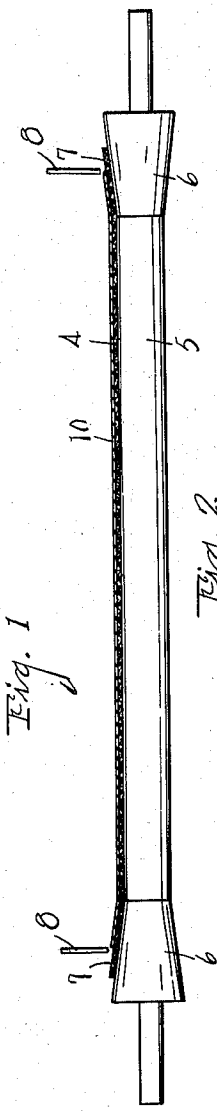


Fig. 2



Fig. 3

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UNITED STATES PATENT OFFICE

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PAPER-MAKING MACHINE

Application filed August 17, 1928. Serial No. 300,227.

The main object of this invention is to provide in a paper making machine means enabling the forming of the web of paper with comparatively straight edges and of uniform width without deckle straps.

Objects pertaining to details and economies of my invention will definitely appear from the description to follow. The invention is defined in the claims.

A structure which embodies the features of my invention is clearly illustrated in the accompanying drawing, in which:

Fig. 1 is a fragmentary side elevation of a paper making machine of the Fourdrinier type embodying my improvements, parts being shown mainly in conventional form.

Fig. 2 is a fragmentary view partially in section on line 2—2 of Fig. 1, no attempt being made to illustrate the mesh of the forming wire.

Fig. 3 is a detail view partially in section on line 3—3 of Fig. 1, the forming wire being conventionally shown.

In the embodiment shown in the accompanying drawing, 1 represents the feed means and 2 the shaker frame carrying the breast roll 3. The forming wire is conventionally shown at 4. Adjacent the breast roll I provide a plurality of forming wire supporting rollers 5 having inwardly tapering conical ends 6, the taper being of sufficient degree and of such length as to support the edges 7 of the forming wire in an inwardly inclined relation to the body portion thereof. The flow boards 8 overhang the front ends of the forming wire to retain the stock as it is delivered on to the forming wire. The upwardly inclined edge portions of the forming wire effectively prevent the stock spreading out over the edge under the shaking action of the shaker frame, and by the time the stock reaches the supporting rollers 9, which are of uniform dimensions from end to end and disposed at the rear of the supporting rollers 5, the web 10 is sufficiently fixed so that it is discharged from the forming wire with comparatively straight edges.

My improvements obviate the necessity for using deckle straps and consequently obviate the expense of their upkeep.

I have illustrated and described my improvements in conventional form as it is believed the disclosure made will enable those skilled in the art to embody or adapt my improvements as may be desired.

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

1. The combination in a paper making machine including a shaker frame, a forming wire and means for delivering pulp to said forming wire, of a plurality of supporting rollers for said forming wire disposed adjacent said feed means, said supporting rollers having central portions of uniform diameter and outwardly expanding end portions acting to support the edges of the wire in an inwardly inclined position.

2. The combination in a paper making machine including a shaker frame and forming wire, of a plurality of supporting rollers for said forming wire carried by said shaker frame and provided with inwardly tapering end portions supporting the edges of the forming wire.

3. In a paper making machine, the combination of a forming wire and coacting breast roll, of a plurality of supporting rollers for said forming wire disposed adjacent said breast roll and having conical end portions acting to support the edges of the forming wire in an inwardly inclined relation.

4. The combination in a paper making machine comprising a shaker frame and forming wire, of supporting rollers for said forming wire carried by said shaker frame, means for delivering pulp to said forming wire, and means for supporting the edges of the forming wire adjacent said feed means in an inwardly inclined relation to the main body wire.

In witness whereof I have hereunto set my hand.

RALPH A. HAYWARD.