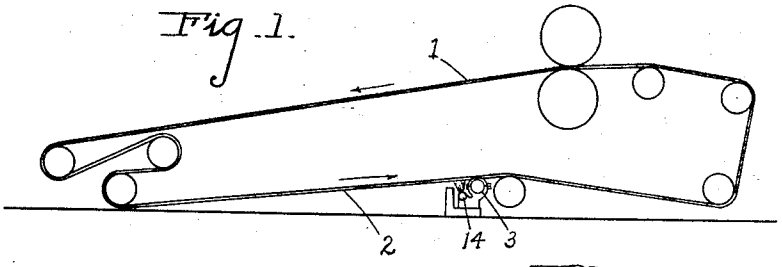
May 25, 1926. 1,586,358

H. E. EURICH

FELT CLEANER FOR PAPER MAKING MACHINES

Filed Nov. 25, 1925

Fig. 1.



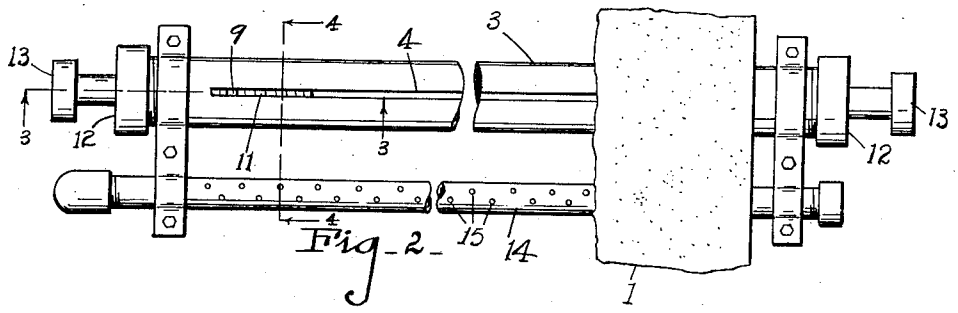


Fig. 2.

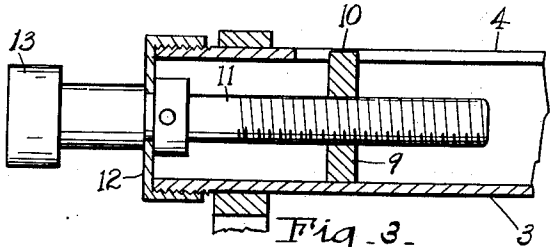


Fig. 3.

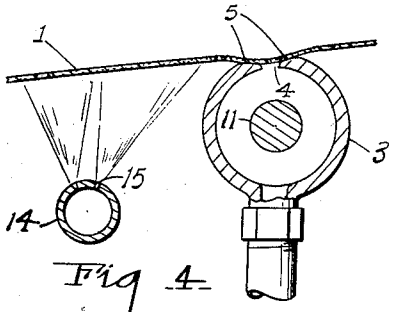


Fig. 4.

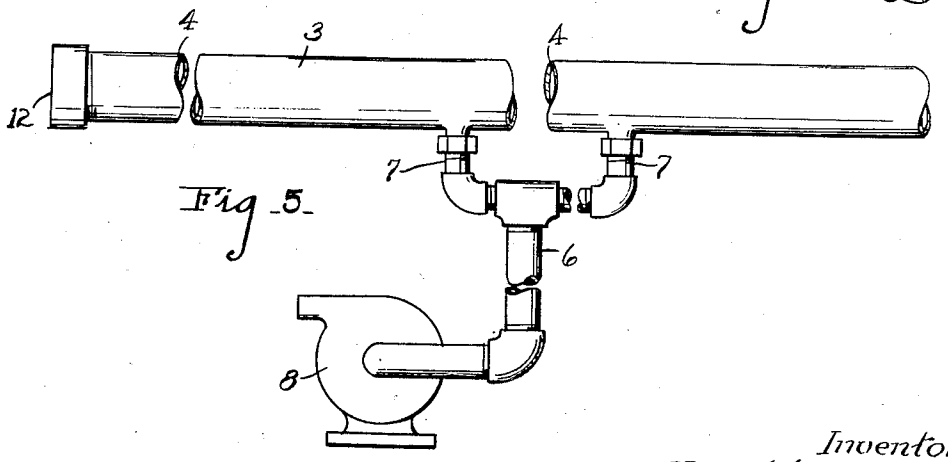


Fig. 5.

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Patented May 25, 1926. 1,586,358

UNITED STATES PATENT OFFICE.

HARRY E. EURICH, DECEASED, LATE OF OTSEGO, MICHIGAN; BY WILLIAM A. MANSFIELD, ADMINISTRATOR, OF OTSEGO, MICHIGAN, ASSIGNOR TO MAC SIM BAR PAPER COMPANY, OF OTSEGO, MICHIGAN.

FELT CLEANER FOR PAPER-MAKING MACHINES.

Application filed November 25, 1925. Serial No. 71,426.

The main objects of this invention are:

First, to provide an improved felt cleaner for paper making machines which may be left in continuous operation while the machine is in operation.

Second, to provide a felt cleaning apparatus for paper making machines which acts uniformly from edge to edge of the felt and with a minimum of wear thereon.

Third, to provide an improved felt cleaning apparatus for paper making machines which is very simple and economical in structure and may be conveniently installed.

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

A structure embodying the features of the invention is clearly illustrated in the accompanying drawing forming a part of this application, in which:

Fig. 1 is a conventional illustration of a paper making machine equipped with the improvements.

Fig. 2 is a fragmentary plan view of the improved paper felt cleaning apparatus.

Fig. 3 is an enlarged detail view partially in section on a line corresponding to line 3—3 of Fig. 2.

Fig. 4 is a fragmentary view partially in section on a line corresponding to line 4—4 of Fig. 2.

Fig. 5 is a fragmentary elevation of the suction box portion of this felt cleaning apparatus.

Referring to the drawing, 1 represents the forming felt of a paper making machine. The driving and supporting rolls are shown conventionally and without an attempt to show their relation accurately.

The improved felt cleaning apparatus is disposed in operative relation to the return reach 2 of the felt and comprises a cylindrical suction box or pipe 3 having a relatively narrow slot 4 in the top thereof, the outer edges 5 of the slot being rounded substantially as shown. The suction pipe 6 is connected by the branches 7 to the bottom of the suction box. A pump 8 is conventionally shown in Fig. 5. The return of the felt is carried in sliding contact with the face of the suction box, see Fig. 4.

The suction box has adjustable internal heads 9 provided with lugs 10 engaging the slots 4 thereby supporting the heads against rotation. The adjusting screws 11 are rotatably mounted in the ends 12 of the suction box and are provided with finger pieces 13 at their outer ends. This enables the adjustment of the heads to the width of the felt so that the felt may be cleaned for its entire width.

A spray pipe 14 having a plurality of jet orifices 15 is arranged in advance of and adjacent to the suction box so as to deliver against the outer side of the felt. In practice, however, it is not necessary to operate the spray continuously; in fact that, it has been found very satisfactory to operate the spray only at intervals, for instance, weekly intervals when it is common practice to shut down a machine for general cleaning purposes.

The slot 4 is, as stated, relatively narrow, a one-half inch having been found to give very satisfactory results. The full width of the felt may be covered or the box may be adjusted to the particular width of sheet being produced. Owing to the cylindrical form of the suction box and the rounding of the edges 5, the apparatus may be left in continuous operation without material wear on the felt; in fact, it is found to prolong the life of the felt and to enable the production of a very uniform product.

Further, the excess water is removed from the felt so that a larger percentage of the water is removed from the sheet in the forming.

The improvements have been illustrated and described mainly in conventional form as it is believed that this will enable those skilled in the art to embody or adapt the same as may be desired.

Having thus described the invention what is claimed as new and desired to secure by Letters Patent is:

1. The combination with the forming felt of a paper making machine and its supporting and driving means, of a cylindrical suction box over which the return of the felt is carried in sliding contact having a relatively narrow slot in the face thereof, the outer edges of the slot being rounded, said suction box having a suction connection at the bottom thereof, a pair of adjustable head members arranged within said suction box and

provided with lugs engaging said slot thereof whereby the heads are supported against rotation, adjusting screws for said heads having threaded engagement therewith rotatably mounted in the ends of the suction box, and a spray pipe having a plurality of jet orifices directed against the outer side of the felt adjacent to and in advance of the suction box.

2. The combination with the forming felt of a paper making machine and its supporting and driving means, of a cylindrical suction box over which the return of the felt is carried in sliding contact having a relatively narrow slot in the face thereof, the outer edges of the slot being rounded, said suction box having a suction connection at the bottom thereof, a pair of adjustable head members arranged within said suction box and provided with lugs engaging said slot thereof whereby the heads are supported against rotation, and adjusting screws for said heads having threaded engagement therewith rotatably mounted in the ends of the suction box.

3. The combination with the forming felt of a paper making machine and its supporting and driving means, of a cylindrical suction box over which the return of the felt is carried in sliding contact having a relatively narrow slot in the face thereof, the outer edges of the slot being rounded, said suction box having a suction connection at the bottom thereof, and a spray pipe having a plurality of jet orifices directed against the outer side of the felt adjacent to and in advance of the suction box.

4. The combination with the forming felt of a paper making machine and its supporting and driving means, of a cylindrical suction box over which the return of the felt is carried in sliding contact having a relatively narrow slot in the face thereof, the outer edges of the slot being rounded, said suction box having a suction connection at the bottom thereof.

In witness whereof I have hereunto set my hand.

WILLIAM A. MANSFIELD,
Administrator of Harry E. Eurich, Deceased.