

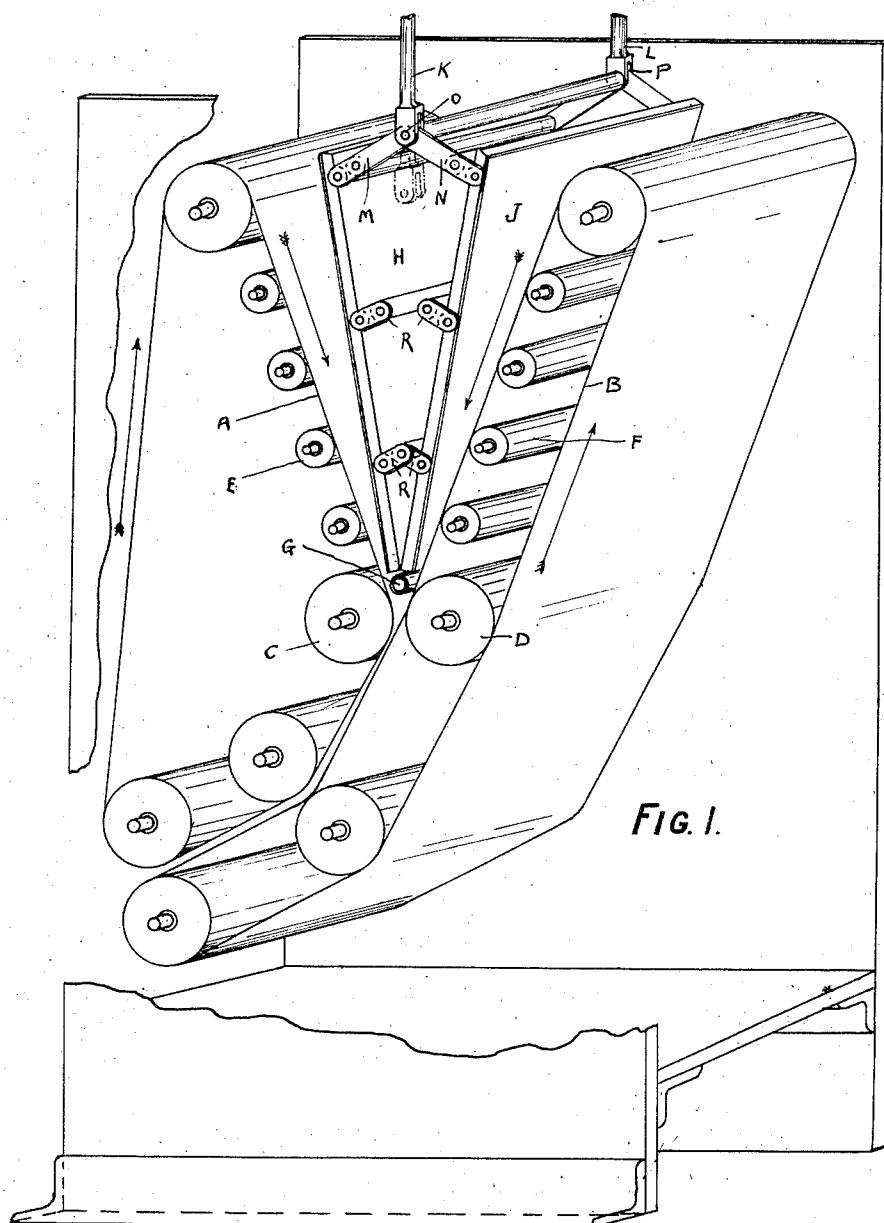
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APPARATUS FOR PULP BOARD MAKING

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## UNITED STATES PATENT OFFICE.

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## APPARATUS FOR PULP-BOARD MAKING.

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This invention is for improvements in apparatus for pulp board making and refers more particularly to apparatus for manipulating the fibres, such as megass fibres, during their manufacture into pulp board.

It is desirable in some forms of pulp board to have a thick matty surface on one side of the board which is tough and will support a finer finished surface on the other side. My invention is particularly adapted to the manufacture of such boards.

In order that the invention may be better understood reference may be had to the accompanying pictorial drawing in which the casing is broken away to show the interior.

Apparatus constructed according to this invention comprises a tank or casing in which two endless woven wire belts A and B are suitably driven by rollers C and D and carried upon rollers E and F.

The belts A and B are arranged in the shape of a Y, that is to say the two belts converge to a central point and then run together for some distance. Mounted at the meeting point of the belts A and B I may provide a hollow perforated roller or pipe G for supplying steam to the material passing that point. I also provide two woven wire screens H and J having reciprocating motion, and these screens H and J converge to near the meeting place of the belts A and B. The angle made by the screens H and J is about half that made by the belts A and B.

The reciprocating motion of the screens H and J is produced by means of pull rods K and L acting on one end of links M and N, this end being pushed outward. The links working on fulcrums O and P will cause the other end of the link to come up carrying with it the screens H and J. The links R follow the motion of the screens H and J.

In use the belts A and B are driven in directions shown by the arrows towards the meeting point and in the space between one belt A and the nearest screen H I feed the long fibres whilst in the space between the other screen J and belt B I feed the finer material which I desire to use as a surfacing mixture. As the two belts A and B travel

towards the meeting point they draw the long fibres and surfacing material with them at the same time the screens H and J are reciprocating which tends to bring the lighter material towards the screen H in one case and to effectually mix the ingredients in the other. The two materials are joined at the meeting place and to assist in the proper treatment whilst the two different layers are being united I provide jets of steam at their meeting place through the perforated roller or pipe G. After meeting and becoming united the two layers of material are conveyed between the belts A and B to suitable finishing apparatus.

In modifications of my invention I may have one screen reciprocating and the other stationary, and may alter the character of the screens and belts to suit different materials. I may also have three or more pairs of belts and screens or use one screen reciprocating or stationary between the two belts.

It has been found by experiment that a variety of pulp boards may be produced by the apparatus before described; for example, a board may be prepared which has a long heavy fibred bottom and a fine smooth upper surface which will not collect dust, fluff and the like, and will readily take paint or stain, and may be plastered, papered or stenciled. Another form of board may be prepared which has two fine smooth surfaces and a thick long fibred interior.

I claim—

1. In apparatus for pulp board making, two moving and converging endless woven wire belts and two converging and reciprocating woven wire screens substantially as described.

2. In apparatus for pulp board making, two moving and converging endless belts, and two converging and reciprocating woven wire screens and a perforated roller for delivering steam at the meeting place of the belts and screens substantially as described.

3. In apparatus for pulp board making, a tank or casing housing endless woven wire belts carried on and moved forward by rollers and adapted to converge, and woven wire screens adapted to converge and re-

ciprocating means for said screens substantially as described.

4. In apparatus for pulp board making, a tank or casing housing endless woven wire belts carried on and moved forward by rollers and adapted to converge, and woven wire screens adapted to converge, reciprocating means for said screens substantially as described.

cating means for said screens, and a perforated pipe for admission of steam at the meeting place of the screens and belts substantially as described. 10

In testimony whereof I have affixed my signature.

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