

No. 658,289.

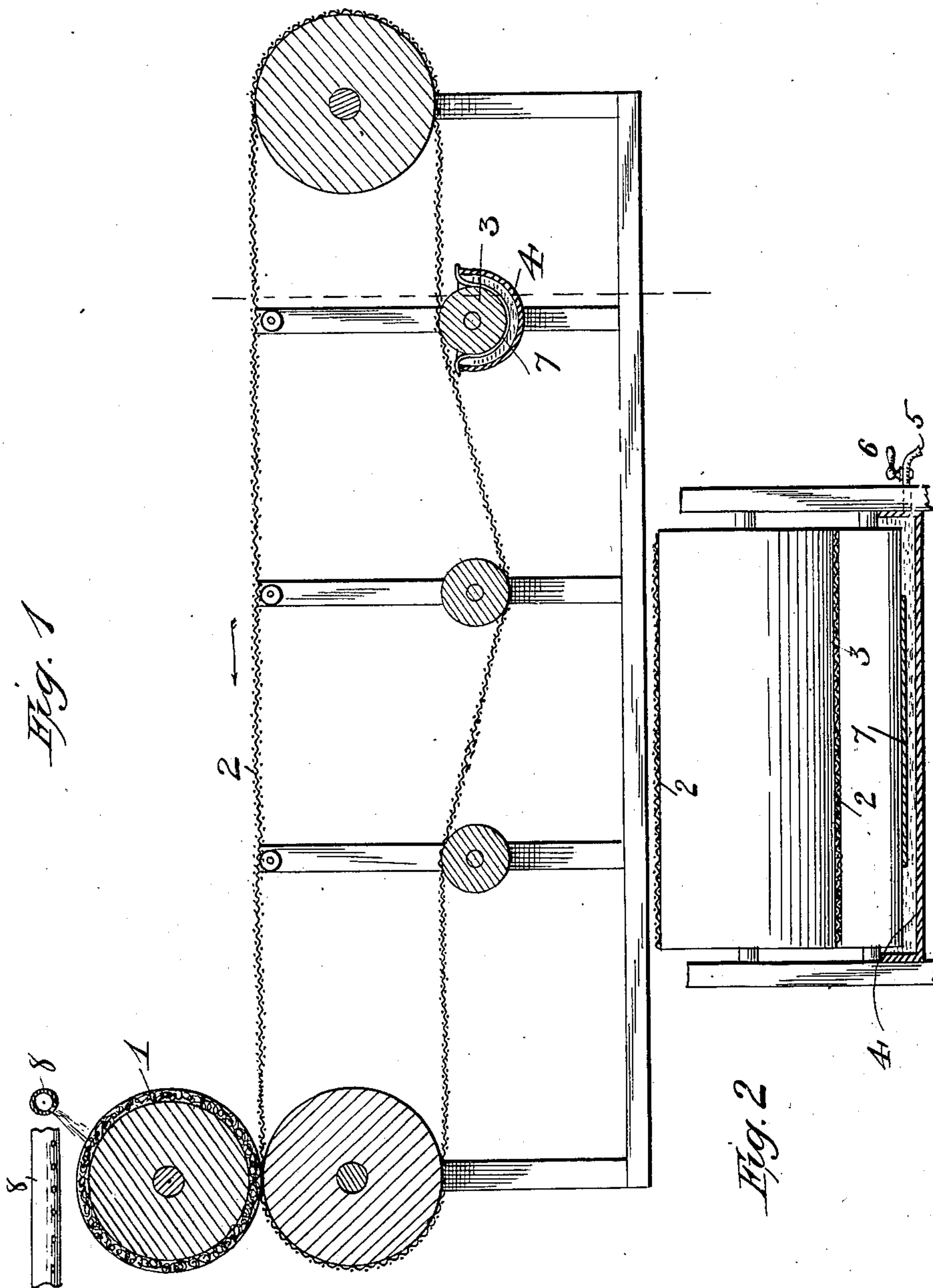
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J. M. SHEPHERD.

APPARATUS FOR CLEANING THE WIRE WEBS IN PAPER MAKING MACHINES.

(Application filed Dec. 21, 1899.)

(No Model.)



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UNITED STATES PATENT OFFICE.

JOHN M. SHEPHERD, OF MOTTVILLE, NEW YORK.

APPARATUS FOR CLEANING THE WIRE WEBS IN PAPER-MAKING MACHINES.

SPECIFICATION forming part of Letters Patent No. 658,289, dated September 18, 1900.

Application filed December 21, 1899. Serial No. 741,171. (No model.)

To all whom it may concern:

Be it known that I, JOHN M. SHEPHERD, a citizen of the United States, residing at Mottville, in the county of Onondaga and State of New York, have invented new and useful Improvements in Apparatus for Cleaning the Wire Webs in Paper-Making Machines, of which the following is a specification.

My invention relates to means for cleaning wire-cloth webs of paper-making machines of the Fourdrinier type; and the objects of the same are to provide means whereby the wire web may be uniformly and expeditiously cleaned during the operation of the machine and to extend the life of the felt jackets used on coucher-rolls by preventing the cleaning acids from coming in direct contact therewith and also to provide for the saving of the material used in cleaning the wire web.

The felt jackets used for covering the coucher-rolls for paper-making machines as at present constructed are quite expensive and require frequent renewals, owing to the fact that a destructive acid is generally applied to the felt jacket for cleaning the wire web upon which the paper is made. It is the purpose of my invention to provide means for cleaning the wire web by acid, but to dilute the acid before it is conveyed to the coucher-roll or immediately thereafter.

I attain the objects and advantages referred to by means of the mechanism illustrated in the accompanying drawings, which form a part of this specification, and in which—

Figure 1 is a sectional view of a portion of a paper-making machine showing my invention connected thereto. Fig. 2 is a transverse sectional view of the same.

Like figures of reference designate like parts wherever they occur in both views of the drawings.

The felt-covered coucher-roll is designated by the numeral 1 and the wire-cloth web is numbered 2.

Suitably attached to the frame of the machine and located immediately under the wire web is a supporting-roller 3, and 4 is a trough which is made of some acid-proof material and is of a form to extend nearly if not quite to the longitudinal axial line of said roller, and, as shown, the roller sets

well down within the trough in order that a comparatively-small quantity of the cleaning material will serve to perform the operation of cleaning. At one end of the trough a waste-pipe 5 and a stop-cock 6 are attached for the purpose of letting out the acid after the cleaning operation. This roller absorbs or laps up a quantity of acid and applies it to the wire-netting to remove small particles of adhering pulp, &c.

A thin hard-rubber wiper or cover 7 may be applied to the central part of the roller, between said roller and trough, to prevent acid from coming in contact with the roller and being applied to the wire web at places where it is not desired to clean it.

With a view to the destruction of the deleterious effect of the small quantity of acid which may reach the couch-roll I provide a water-pipe 8, located just above the couch-roll, said pipe having a number of perforations through which the water is forced as a spray to cleanse the felt jacket during the time the wire web is being treated.

It will be obvious from the foregoing that when it is found necessary to clean the web a quantity of acid is placed in the trough 4, and as the roller 3 revolves within the trough said wire web is subjected to the action of the acid at every point unless the wiper 7 is used to cover a portion of said wire web. In the meantime the spray from water-pipe 8 cast upon the couch-roll reduces the strength of the small quantity of acid which may be conveyed to the felt-jacket until the deleterious effect is entirely destroyed. It will be understood that during the time the acid is being applied to the apron the operation of feeding pulp to the apron will be suspended. The couch-roll is in contact with the wire apron during the cleaning operation, but owing to the water-spray the acid is diluted sufficiently at this point to overcome its deleterious effect.

Having thus fully described my invention, what I claim is—

In a paper-making machine, an endless wire apron supported upon rollers, a trough located immediately below one of said rollers for containing acid for application to said wire apron by the roller, a wiper or cover applied to the central portion of said roller, a

felt-covered couch-roll, contacting with said
apron, and a water-spray pipe for casting
water upon said felt-covered couch-roll to
dilute the acid conveyed thereto by the end-
5 less apron, and means to cause the apron to
travel, substantially as described.

In testimony whereof I have hereunto set

my hand in presence of two subscribing wit-
nesses.

JOHN M. SHEPHERD.

Witnesses:

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