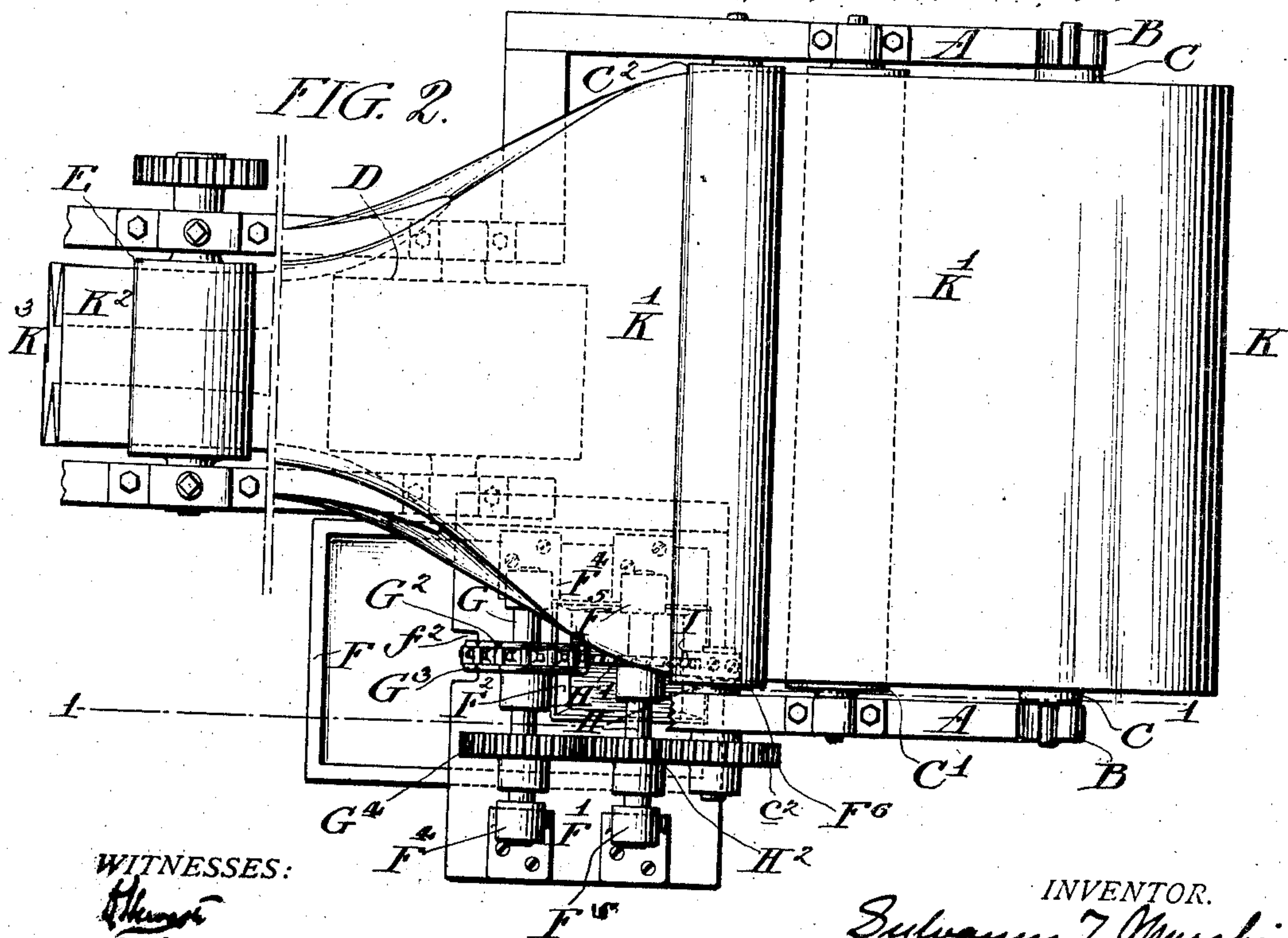
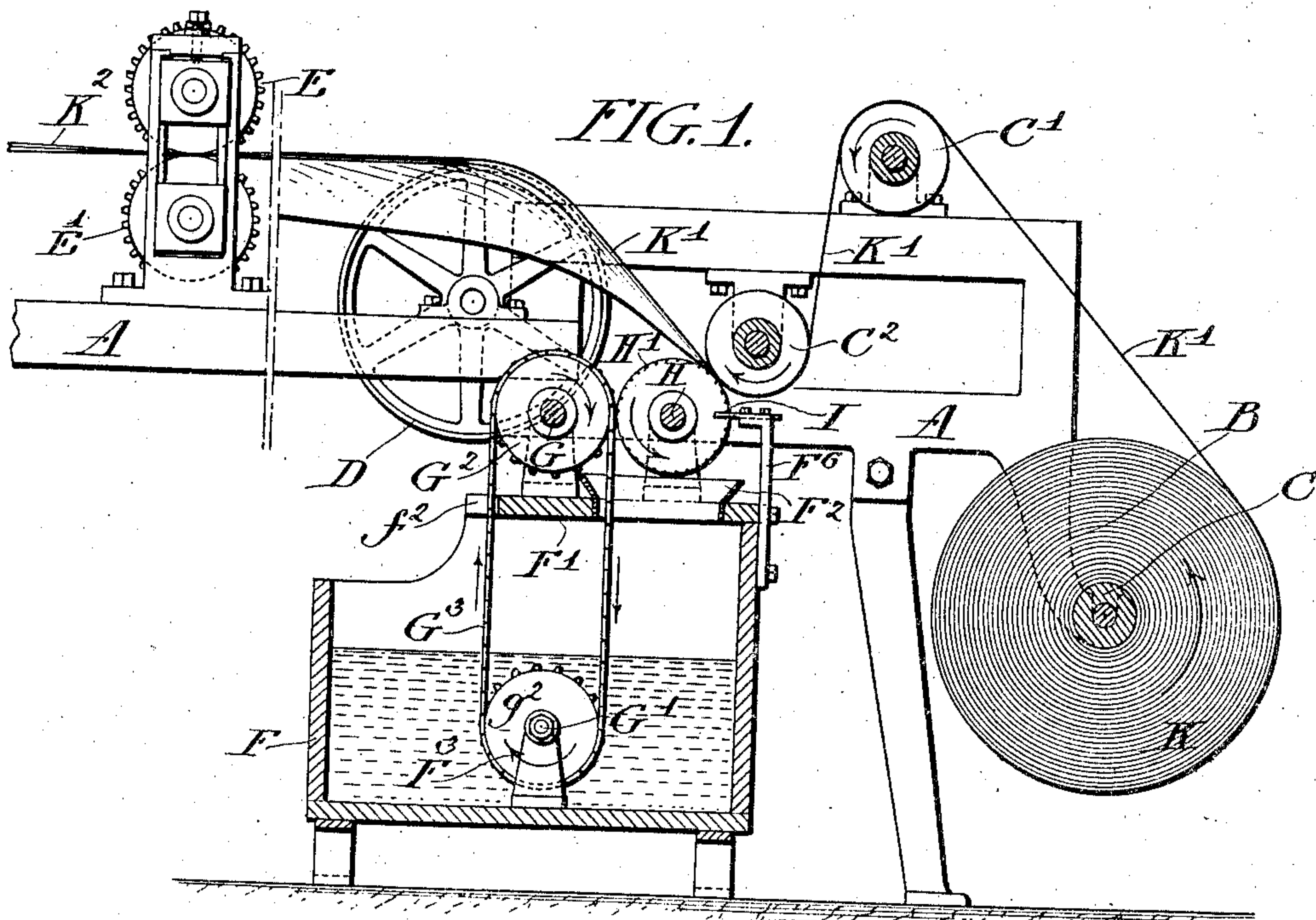


No. 850,242.

PATENTED APR. 16, 1907.

S. T. MURCHIE.
PASTING DEVICE.

APPLICATION FILED JAN. 21, 1903.



WITNESSES:

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PASTING DEVICE.

No. 850,242.

Specification of Letters Patent.

Patented April 16, 1907.

Application filed January 21, 1903. Serial No. 139,896.

To all whom it may concern:

Be it known that I, SYLVANUS T. MURCHIE, a citizen of the United States of America, residing in Kaukauna, county of Outagamie, in the State of Wisconsin, have invented a certain new and useful Improvement in Pasting Devices, of which the following is a true and exact description, reference being had to the accompanying drawings, which form a part thereof.

My invention relates to pasting devices for applying paste to webs of paper preparatory to converting them into tubes, and is especially adapted for use in connection with mechanism for making paper bags.

In bag-making machinery particularly it is necessary that in forming the tube from which the bag-blanks are cut a strong and even line of paste should be applied to the edge of the web of paper which is to form with the lapped opposite edge the seam of the tube. Heretofore the generally used pasting device has consisted of a paste-disk running in contact with the web and rotated by friction therewith, the lower edge of the disk running in a paste-trough and a scraper being provided to prevent an undue quantity of paste, and particularly lumps of paste, from being carried up to the point of contact with the web. This device has proved troublesome and ineffective in many respects, notably because of the choking of the scraper by lumps of paste which results in practically stripping the disk of paste before it comes in contact with the web and sometimes in stopping or retarding the motion of the disk, which in the old plan is driven by friction with the web. Again, the disk in the old construction effects practically no stirring of the paste in the trough, and to keep the paste of proper consistency and prevent the formation of a partially-dried scum on the top of the paste it is necessary that the machine-tender should frequently stir the paste; but this is a duty which is in practice much neglected. Again, the paste-trough in the old construction is by reason of its necessary situation of limited capacity and requires refilling, generally several times, during a day's run, and this duty is frequently overlooked by the machine-tender.

The object of my invention is to provide a pasting device which will be free from the

above-noted defects of the older devices, and my invention consists in providing a paste-box having a rotating sprocket-wheel situated above it and a sprocket-chain passing over said wheel and depending into the paste-box; further, in providing a paste-disk running in contact with the web of paper and in such proximity with the chain as to receive paste from it. The sprocket-chain for the best results should pass over a guide, preferably another sprocket-wheel, situated in the bottom of the paste-box and should be positively driven, and I prefer also to positively drive the paste-disk in fixed relation to the movement of the chain.

Reference is now had to the drawings, which illustrate my invention, and in which—

Figure 1 is a side elevation of a portion of a tube-forming mechanism including the pasting device, the elevation being taken on the section-line 1 1 of Fig. 2; and Fig. 2 is a plan view of the mechanism shown in Fig. 1.

A is the frame of the machine; B B, brackets supporting the journals of the roller C, on which is wound the paper-roll K.

C' and C² are guide-rolls over which the web K' of paper is led to the tube-forming mechanism, of which only a preliminary roll D and the final pressing-rolls E E' are shown, as such mechanism forms no part of my invention. At K², I show a bellows-folded tube issuing from the rolls E E' and having a pasted seam, (indicated at K³.)

F is a paste-box having a table F' situated above it, with openings f² and F² for the passage of the sprocket-chain. As shown, bearings F⁴ F⁴ and F⁵ F⁵ are secured to the table F', and bearing-brackets F³ are secured to the bottom of the box.

F⁶ is a bracket supporting a scraper I.

G is a shaft supported in bearings F⁴ F⁴ and having secured to it the sprocket-wheel G² and also a gear-wheel G⁴.

G³ is a sprocket-chain passing over sprocket-wheel G² and depending into the paste-box F, wherein, as shown, it passes around a guide sprocket-wheel g², supported on a shaft G', running in the bearing-brackets F³.

H is a shaft supported in bearings F⁵ F⁵ and carrying the paste-disk H' and gear-wheel H², which is engaged with gear G⁴, as shown, and which also engages a gear-wheel c² on the shaft of roll C². The gears G⁴ and

H² should be driven by positively-acting mechanism, which can be connected therewith in any convenient way. It is not essential that the roll C² should be positively driven, and, indeed, it is not absolutely necessary that the disk H' should be coupled with shaft G' or otherwise positively driven.

In operation the paper is drawn forward over rolls C' and C², the edge of the web running between roll C² and paste-disk H'. The positively-driven sprocket-chain G³, running in the paste-box, keeps the paste therein well stirred up and passes over the sprocket G², well covered by paste, which is imparted freely to the paste-disk H' and by it to the web of paper, surplus paste being scraped from the disk by scraper I.

It will be obvious that the position of the paste-box enables me to make it of such size as to hold at least a full day's supply of paste and that the constant agitation of the paste will result in preventing the formation of lumps or scum to an injurious extent, while the paste-disk is also by removal from the box prevented from carrying up with it lumpy or tough portions which would tend to clog its scraper.

As the shafts G and H are side by side in the same horizontal plane, the portion of the chain passing in close proximity to the periphery of the paste-disk and from which the latter receives paste extends vertically in the line of the common tangent to the paste-disk and the wheel G². In consequence of this arrangement the chain and paste-disk do not coöperate to form a re-

ceptacle in which paste accumulates in any material quantity.

Having now described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In combination with mechanism for guiding a web of paper including a roll over which the web passes, a paste-box, a rotating sprocket-wheel seated above the paste-box, a sprocket-chain passing around said sprocket-wheel and depending into the paste-trough, and a rotating paste-applying disk for applying a line of paste to the web as it passes around said roll, geared to rotate positively with said sprocket-wheel, and having its periphery passing in close proximity to and receiving paste from a vertical portion of said chain.

2. In combination with mechanism for guiding a web of paper, including a roll over which the web passes, a rotating paste-applying disk operating to apply a line of paste to the web as it passes around said roll, a paste-box, a rotating sprocket-wheel situated above said box and having its axis parallel to and in the same horizontal plane with the axis of said disk, and a sprocket-chain passing over said sprocket-wheel and depending vertically into said paste-box, a vertical portion of said sprocket-chain passing close to the paste-disk so as to supply it with paste.

SYLVANUS T. MURCHIE.

Witnesses:

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