(No Model.)

C. FISHER & E. R. SOLLIDAY.

APPARATUS FOR MAKING PAPER FELT WADDING OR LINING.

No. 286,287. Patented Oct. 9, 1883.

Fig. 1.

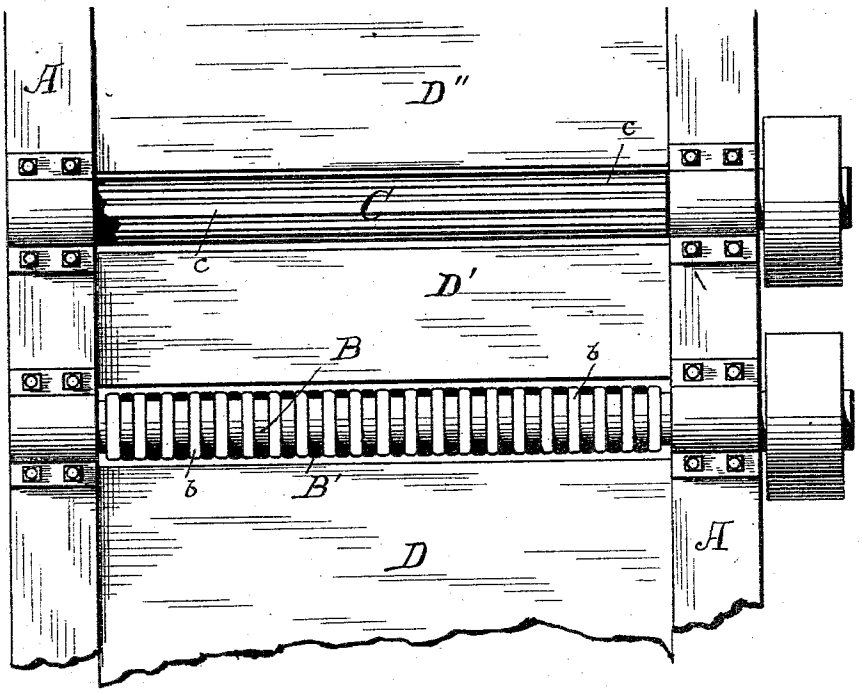
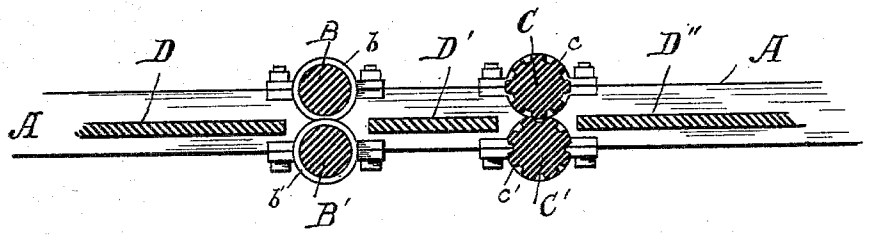


Fig. 2.



Clark Fisher,
and
Edward R. Solliday,
INVENTOR
By their Attorneys,
W. C. Strawbridge
J. Bonsall Taylor.

WITNESSES:
A. H. Coulter
John D. Colleyden

N. PETERS. Photo-Lithographer, Washington, D. C.

UNITED STATES PATENT OFFICE.

CLARK FISHER, OF TRENTON, AND EDWARD R. SOLLIDAY, OF LAMBERTVILLE, NEW JERSEY, ASSIGNORS TO THE UNION MILLS PAPER MANUFACTURING COMPANY, OF NEW HOPE, PENNSYLVANIA.

APPARATUS FOR MAKING PAPER FELT, WADDING, OR LINING.

SPECIFICATION forming part of Letters Patent No. 286,287, dated October 9, 1883.

Application filed July 17, 1883. (No model.)

To all whom it may concern:

Be it known that we, CLARK FISHER, of Trenton, New Jersey, and EDWARD R. SOLLIDAY, of Lambertville, New Jersey, have invented an Improved Apparatus for Manufacturing Paper Felt, Wadding, or Lining, for use beneath carpets and for various other purposes in the arts, of which the following is a specification.

The object of our invention is the production of indented or doubly-corrugated paper felt, wadding, or lining, and this object we accomplish by the employment of apparatus of the character hereinafter described and claimed.

In general terms, this apparatus consists of a housing or other suitable frame-work containing two sets of corrugating, creasing, or indenting rolls, arranged one set in advance of the other, so that material is first acted upon by one set and then by the other, and the corrugations of one set running in a direction different from that of the corrugations of the other set. Thus, for instance, the corrugations of the first set are represented as peripheral, while the corrugations of the other set are represented as axial or longitudinal. The corrugations of the two rolls in either set must, however, correspond in kind, and be arranged to mesh with each other in the manner clearly illustrated in the drawings.

In the drawings, which represent a machine conveniently embodying our improvements, Figure 1 is a top plan view, and Fig. 2 a longitudinal vertical central sectional elevation.

Similar letters of reference indicate corresponding parts in both figures.

A is a housing or framing for supporting the rolls.

B B′ are a first set of rolls, and C C′ a second. The two rolls which together constitute each set are preferably arranged one above the other, as shown.

b b′ represent the corrugations of the set of rolls B B′, and these corrugations are formed peripherally around the rolls.

c c′ represent the corrugations of the set of rolls C C′, and these corrugations are disposed longitudinally upon the rolls. The corrugations upon the respective rolls of the two sets are so adjusted as to mesh after the manner of the teeth of gearing, so that the material in passing through the rolls of the sets is crimped, corrugated, or indented to a form correspondent to the outline of the corrugations of the sets. As a convenient means for delivering the material to be corrugated to the first set of rolls, for carrying it from the first set to the second set, and for finally delivering it from said second set, we have applied to the housing chutes or guides respectively lettered D D′ D″. These guides, however, are not essential, as other means of feeding and guiding the material may be resorted to.

We have represented an apparatus embodying in its construction but two sets of rolls. It is of course competent for us to employ more than two sets, if we so desire, and the character, form, and dimensions of the corrugations may be varied at will, it being, however, of the essence of the invention that the corrugations on the respective sets should not be coincident, but that the corrugations of the second or succeeding set should be disposed at a different angle or trend in a different direction from those of the preceding set, or in such manner as to cause the indentation imparted by them to traverse, or at least not be correspondent with the indentation imparted by the first set.

Having thus described our invention, we claim—

In an apparatus for corrugating paper felting, wadding, or kindred products, the combination of sets of corrugated rolls, the corrugations of the rolls of each set being parallel, and the corrugations of each of the respective sets not being coincident, but an angle to each other, substantially as and for the purposes specified.

In testimony whereof we have hereunto signed our names this 1st day of June, A. D. 1883.

CLARK FISHER.
EDWARD R. SOLLIDAY.

In presence of—
EDW. F. GREEN,
SYMMES B. HUTCHINSON.