C. D. MATTHEWS & A. D. MITCHELL.

ACCORDION PLEATING MACHINE.

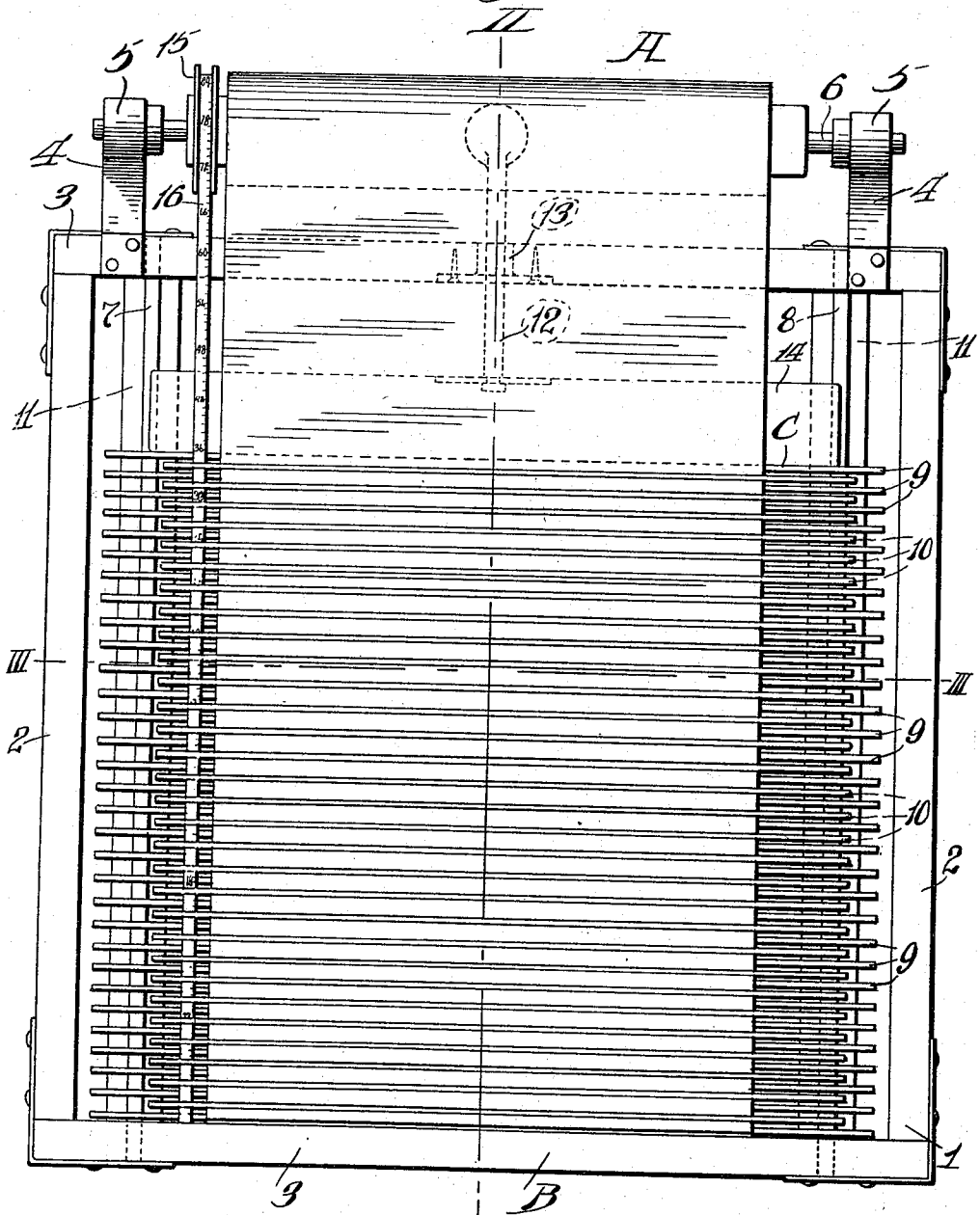
APPLICATION FILED SEPT. 26, 1914.

1,217,874.

Patented Feb. 27, 1917.

2 SHEETS—SHEET 1.

Fig. 1.



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Charles D. Matthews.
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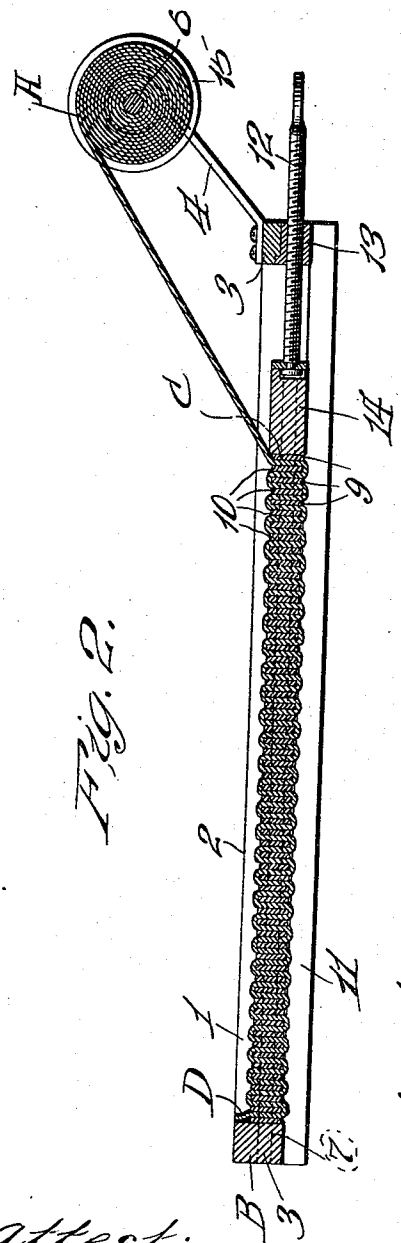


Fig. 2.

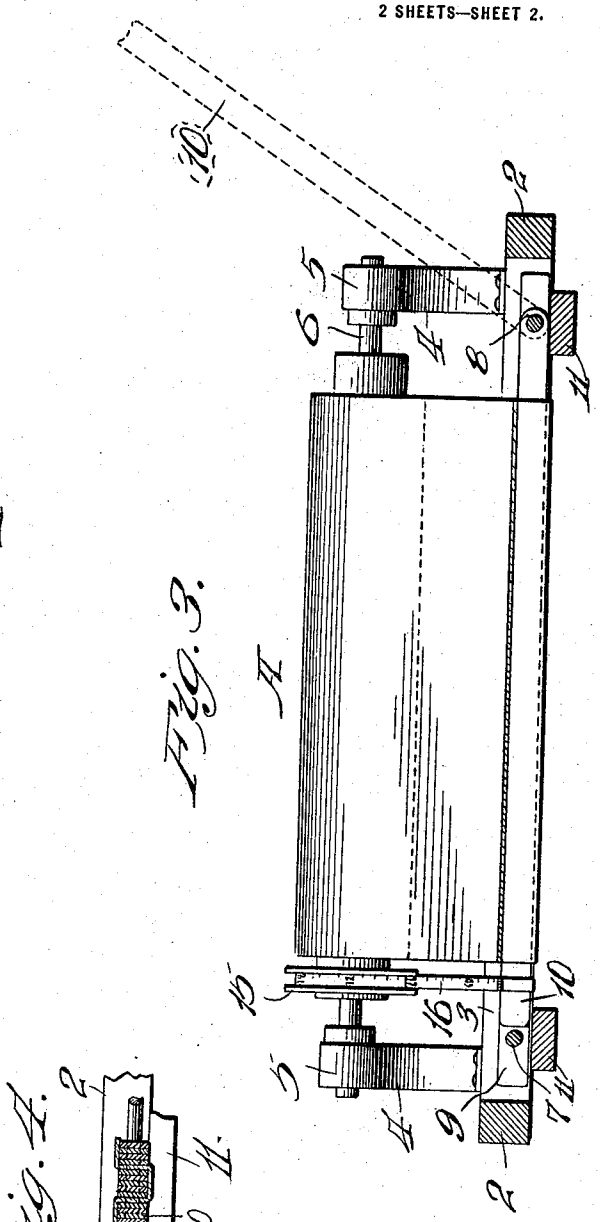


Fig. 3.

Fig. 4.

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UNITED STATES PATENT OFFICE.

CHARLES D. MATTHEWS, OF COLUMBIA, MISSOURI, AND ADDIE D. MITCHELL, OF MUSKOGEE, OKLAHOMA.

ACCORDION-PLEATING MACHINE.

1,217,874. Specification of Letters Patent. Patented Feb. 27, 1917.

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To all whom it may concern:

Be it known that we, CHARLES D. MATTHEWS and ADDIE D. MITCHELL, citizens of the United States of America, and residents of Columbia, in the county of Boone and State of Missouri, and Muskogee, in the county of Muskogee and State of Oklahoma, respectively, have invented certain new and useful Improvements in Accordion-Pleating Machines, of which the following is a specification.

The primary object of this invention is to provide an improved device for pleating, which is inexpensive of manufacture and simple in operation.

Another object is to provide a pleater of this character whereby a series of slidably mounted members are adapted to have other members interposed therebetween.

A further object is to provide improved means for measuring the pleated goods.

Other and further objects will appear in the specification, and be specifically pointed out in the appended claims, reference being had to the accompanying drawings exemplifying the invention, and in which,

Figure 1 is a plan view of this improved device.

Fig. 2 is a longitudinal section taken on the line II—II, Fig. 1.

Fig. 3 is a transverse section taken on the line III—III, Fig. 1.

Fig. 4 is a fragmentary sectional view showing how a number of the members 9 and 10 can be bunched together to form wide pleats.

Referring to the drawings: 1 designates a frame which is adapted to be mounted on a table. Said frame comprises a pair of side members 2 and end members 3. Mounted on one of the end members 3 is a pair of upturned brackets 4 on which are formed bearings 5 for the support of a horizontally arranged shaft 6.

Horizontally arranged in the frame 1 is a pair of bars 7 and 8, said bars being arranged parallel to each other, and having their ends in the end members 3. Transversely and slidably mounted on the bars 7 are a series of members 9 which are in the form of flat strips or plates, there being an opening formed adjacent the ends of each member 9 which provides for the mounting of the members on the bars 7 and 8.

Swingingly mounted on the bar 8, between each pair of members 9, is an interposing member 10, said members 10 being shorter in length than the members 9. Secured to the end members 3 are a pair of bottom sills 11, each of said sills being located beneath each of the bars 7 and 8.

In the operation of this improved device, the material which is to be pleated is mounted on the shaft 6, said material being wound on the shaft as shown at A. The members 10 are swung upwardly as shown in dotted lines Fig. 3. The material is then drawn from the roller and laid upon the top edge of the slidably mounted members 9. Then the members 10 are swung downwardly in turn from the front B of the frame, and are interposed between the members 9, thereby carrying the material down between said members. When all of the members 10 have been interposed between the members 9, the tightening screw 12 is manipulated, thereby moving the compression block 14 against the end member C of the members 9 so that all of the members 9 and 10 will be compressed together, which compressing action will pleat the goods. The adjusting screw 12 is turnably mounted in the nut 13, which is carried by one of the end members 3. The compression block has its ends slidably mounted on the bottom sills 11.

After the goods has been pleated, the screw 12 is manipulated in the opposite direction, thereby releasing the block 14 from compression against the members 9 and 10. The end D of the goods is grasped by the operator and pulled upwardly, which action will draw the goods from between the members 9, and at the same time elevate the swingingly mounted members 10 so they can be readily thrown into the position shown in dotted lines Fig. 3.

In order to provide improved means of measuring the amount of goods pleated, a drum or spool 15 is carried by the shaft 6, said drum having a tape measure 16 wound thereon. This tape measure is pulled off the spool with the goods from the roller and laid on the members 9, and is pressed downwardly and inserted between said members by the manipulation of the members 10. It is, therefore, readily seen that the amount of tape which is engaged between said members 9 and 10 will be of the same length as the material. As shown in Fig. 1, the numeral "36" on the tape, which

is adjacent the end member 9, indicates the amount of goods being pleated. After a length of goods has been wound off the shaft 6 and pleated, the shaft is turned in the opposite direction so that the tape measure 16 will be wound back on the spool 15.

What we claim is:

1. In a pleating machine, a series of parallelly arranged members, a series of swingingly mounted members, each of said swingingly mounted members adapted to be engaged between each pair of said parallel members, means whereby said members are clamped together, a roller for feeding material to be pleated to said members, and a measuring device carried by said roller coöperably related to said members for measuring the amount of material pleated.

2. In a pleating machine, a frame, revolubly mounted shaft secured to said frame, a material to be pleated mounted on said shaft, a pair of guide rods mounted in said frame, a series of parallelly arranged members slidably mounted on said rods, a series of members swingingly mounted at one end to one of said rods, each of said swingingly mounted members adapted to be interposed between each pair of slidably mounted members, said swingingly mounted members adapted to force a flexible material between each pair of said slidably mounted members, means for clamping said members together when said swingingly mounted members are in engagement with said slidably mounted members, and means mounted on said shaft coöperably related to said members for measuring the amount of material forced between said members.

CHARLES D. MATTHEWS.
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In the presence of—
T. K. Catron,
Alta Townsend.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."