O. GIRNDT.

DEVICE FOR THE AUTOMATIC INTRODUCTION OF CLOTH BETWEEN CALENDER ROLLERS.

APPLICATION FILED AUG. 20, 1908.

946,429. **Patented Jan. 11, 1910.**

Fig. 1.

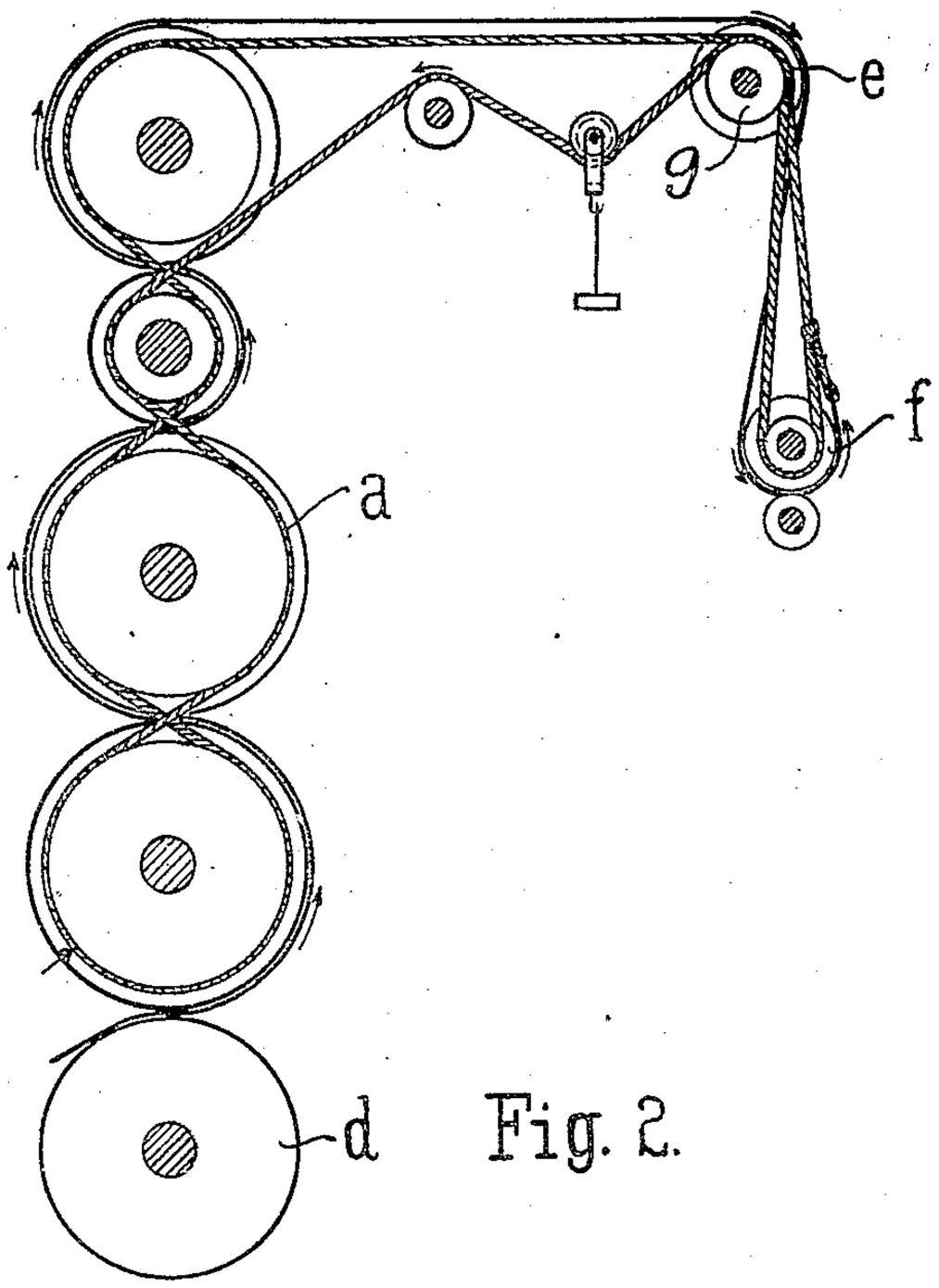
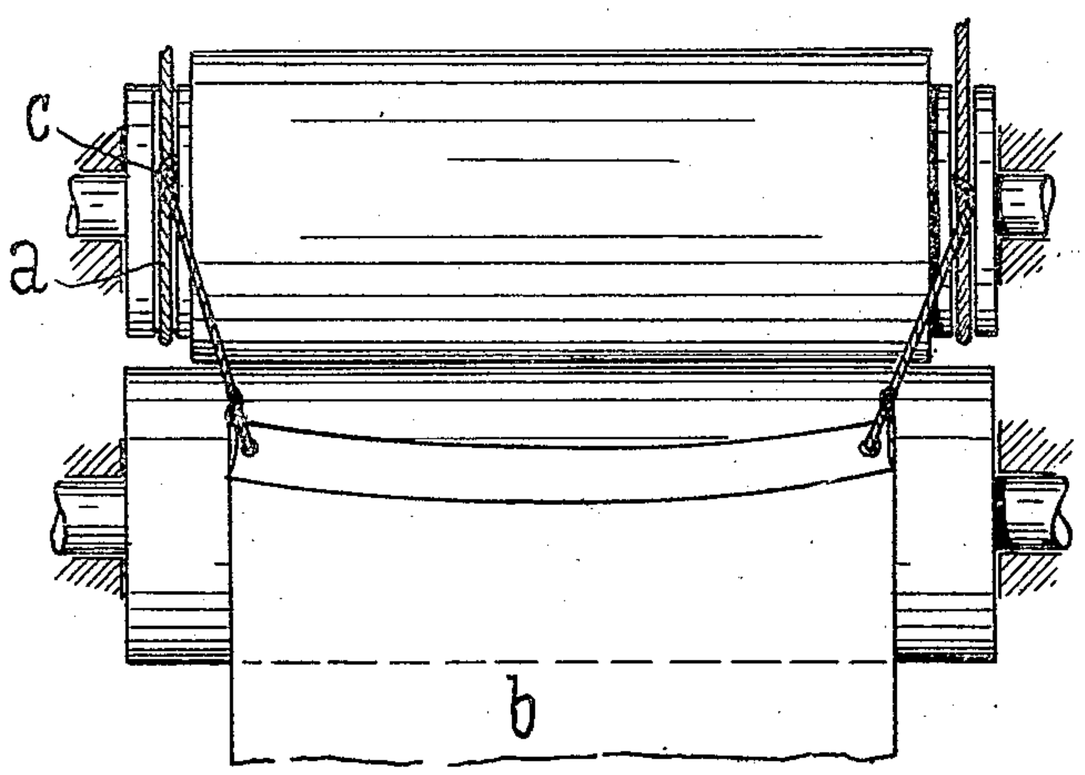


Fig. 2.



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UNITED STATES PATENT OFFICE.

OTTO GIRNDT, OF OBERNEUKIRCH IN THE LAUSITZ, GERMANY.

DEVICE FOR THE AUTOMATIC INTRODUCTION OF CLOTH BETWEEN CALENDER-ROLLERS.

946,429. Specification of Letters Patent. **Patented Jan. 11, 1910.**

Application filed August 20, 1908. Serial No. 449,469.

To all whom it may concern:

Be it known that I, OTTO GIRNDT, manufacturer, a subject of the Emperor of Germany, residing at Oberneukirch in the Lausitz, Saxony, Germany, have invented certain new and useful Improvements in Devices for the Automatic Introduction of Cloth Between Calender-Rollers, of which the following is a specification.

When cloth is being introduced between calender rollers, accidents frequently occur owing to the workman having to push the edges of the cloth between the rollers, more particularly when thick cloth is to be calendered, the operators getting their fingers between the rollers, which is specially liable to happen when the calenders are thrown into gear very violently or unexpectedly. Another drawback is that the rollers, while they are hot, have to stop for a considerable time at single points of the cloth, as for each roller the cloth has to be freshly put on, or at least has to be guided. The cloth is consequently superheated and burned at several points.

This invention relates to a device which enables the cloth to be introduced in an automatic manner.

A device according to the invention hereafter described is shown diagrammatically in Figure 1 of the annexed drawing, while Fig. 2 illustrates the method of securing the cloth to the cords arranged around the calender rollers.

The essence of the invention consists in arranging an endless cord or rope around all the calender rollers, at each end of the calender, in the manner required by the travel of the cloth, the said cord traveling with the calender rollers. The cloth is secured to the said cord preferably in such manner that the upper edge of the cloth is turned over, and to each side of the cloth is secured a band which is connected to the cord in any manner desired. In order to keep the cord *a* always taut and to make it travel with the same speed as the rotating rollers, a suitable stretching device is provided. When the calender is started, the cloth *b*, connected by means of a band or the like to the cord *a* at *c*, will be forced by the advance of the cord between the calender rollers *d*. As the cord *a* travels about the calender rollers in the same way as the cloth has to travel, the cloth passes without further assistance through all the rollers, and the attendant merely has to keep the cloth smooth. The cloth is carried from the calender over a guide roller *e* to the delivery roller *f* and disconnected at the latter from the cord, without it being necessary to stop the calender for this purpose, as the delivery roller rotates so slowly that it is quite easy to detach the cloth or to cut it off. From the roller *f* the cord *a* is returned over a loose pulley *g* arranged on the shaft of the roller *e* whereupon it is again conducted over the calender rollers, as shown in the drawing, the returning stretch of said cord being, of course, passed outside of the stretch traveling with the cloth.

What I claim as new and desire to secure by Letters Patent of the United States is:—

A device for the automatic introduction of the cloth between calender rollers, consisting in the arrangement of an endless cord at each side of the machine, both cords being adapted to travel on pulleys arranged on the rollers of said machine and follow the path of the cloth, so that when fastening the end of the cloth to said cords by means of a band or the like, said cloth is introduced by said cords between each set of rollers, substantially as set forth.

In testimony whereof I have hereunto set my hand in the presence of two witnesses.

OTTO GIRNDT.

Witnesses:

PAUL ARRAS,

CLÁRE SIMON.