

No. 775,438.

PATENTED NOV. 22, 1904.

E. R. BECK.  
CALENDER ROLL.  
APPLICATION FILED DEC. 26, 1901.

NO MODEL.

Fig. 1.

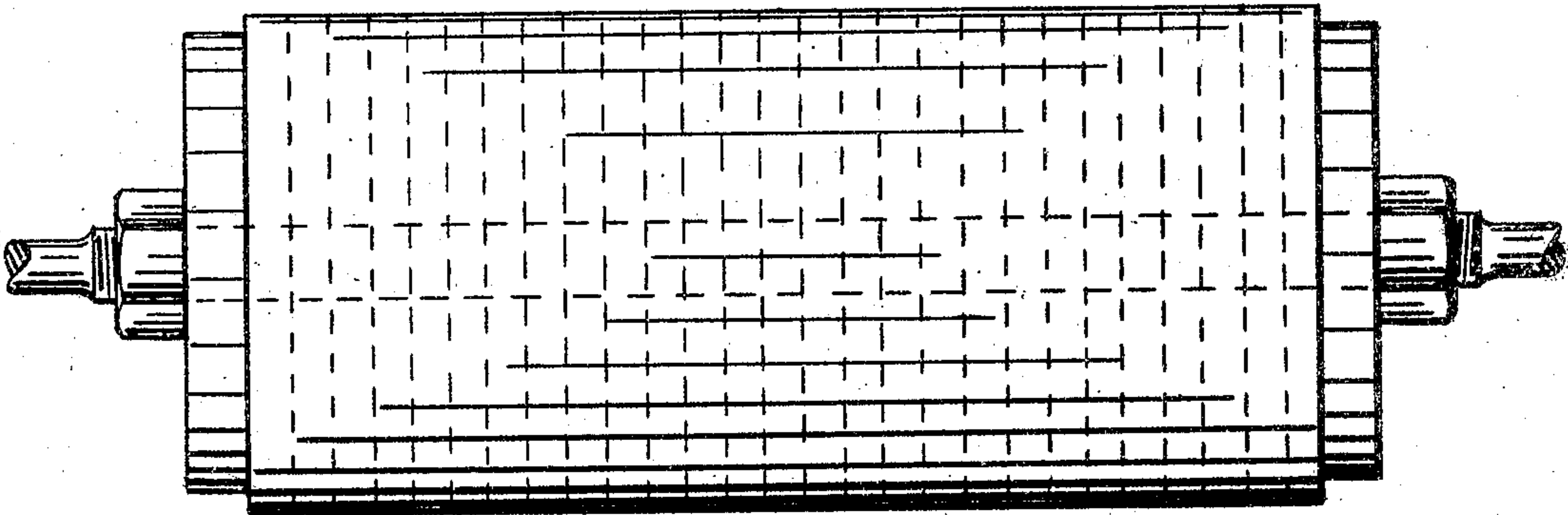
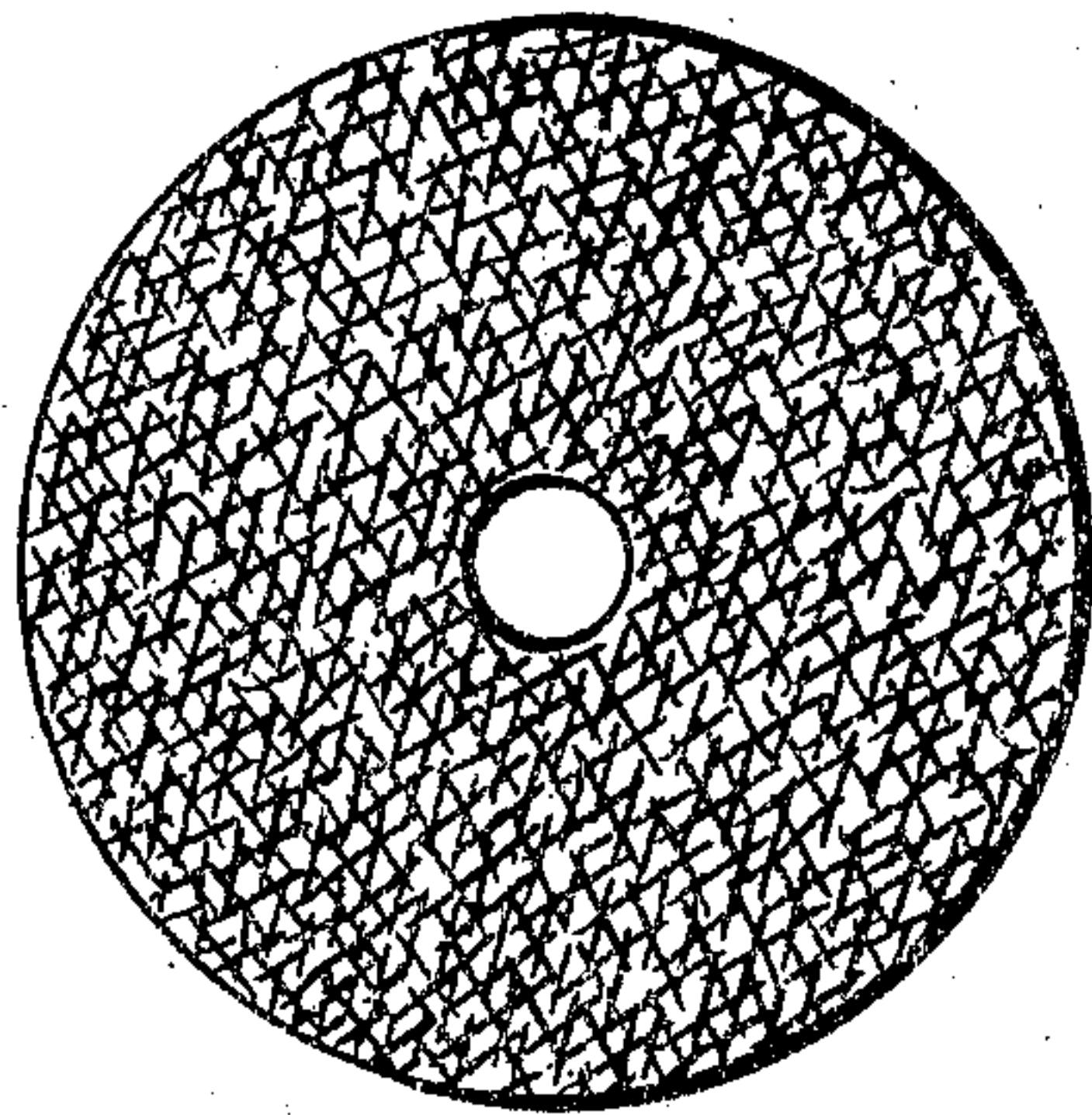


Fig. 2.



Witnesses

S. Brashears

Wm Hynes

E. R. Beck  
Inventor

per J. Dittmar

Attorney

## UNITED STATES PATENT OFFICE.

EMIL RUDOLF BECK, OF HILBERSDORF, GERMANY.

## CALENDER-ROLL.

SPECIFICATION forming part of Letters Patent No. 775,438, dated November 22, 1904.

Application filed December 26, 1901. Serial No. 87,370. (No model.)

*To all whom it may concern:*

Be it known that I, EMIL RUDOLF BECK, a subject of the Emperor of Germany, residing in Hilbersdorf, Saxony, Germany, have invented certain new and useful Improvements in Calender-Rolls, of which the following is a specification.

Calender-rolls which are made of separate and crosswise-superposed disks obtained from cotton fibers have the advantage of being smoother and more even on the cylindrical surfaces; but nevertheless they are not uniform enough for very fine goods, because they show the single layers upon the goods.

My new-process calender-rolls are made from the fleece obtained by the carding-engine, and in such fleece the fibers are crossing each other. To accomplish this effect, I use two engines, which are placed at an angle to each other. These engines produce together a fleece having layers lying in directions at an angle to each other, preferably a right angle. The fibers in the fleece produced by both carding-engines are deposited in different directions—that is, crosswise to each other. From this fleece disks are cut and a roll formed of such disks, placed side by side upon a central shaft or bar, and pressed closely together by heads at the opposite ends of such bars in the

usual or any suitable manner. When pressed together upon the roll, the dividing-lines between the individual disks will not be discernible. The fibers of the several disks lie in many different directions and being crossed in each individual disk, so that in the completed roller the fibers are crossed at as many points as there are disks used in making the rolls.

In the accompanying drawings I have shown a roll constructed in accordance with my invention, Figure 1 showing it complete, and Fig. 2 shows the calender-roll in cross-section.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent of the United States, is—

A calender-roll, the main body of which is composed of disks cut from a compound carded cotton fleece, said fleece being composed of a plurality of fleeces having their fibers cross each other at substantially a right angle the disks being mounted and secured under stress in the roll in any usual or ordinary manner, substantially as described.

In testimony whereof I affix my signature.

EMIL RUDOLF BECK.

In presence of—

FREDERICK J. DIETZMAN,  
H. THIELE.