

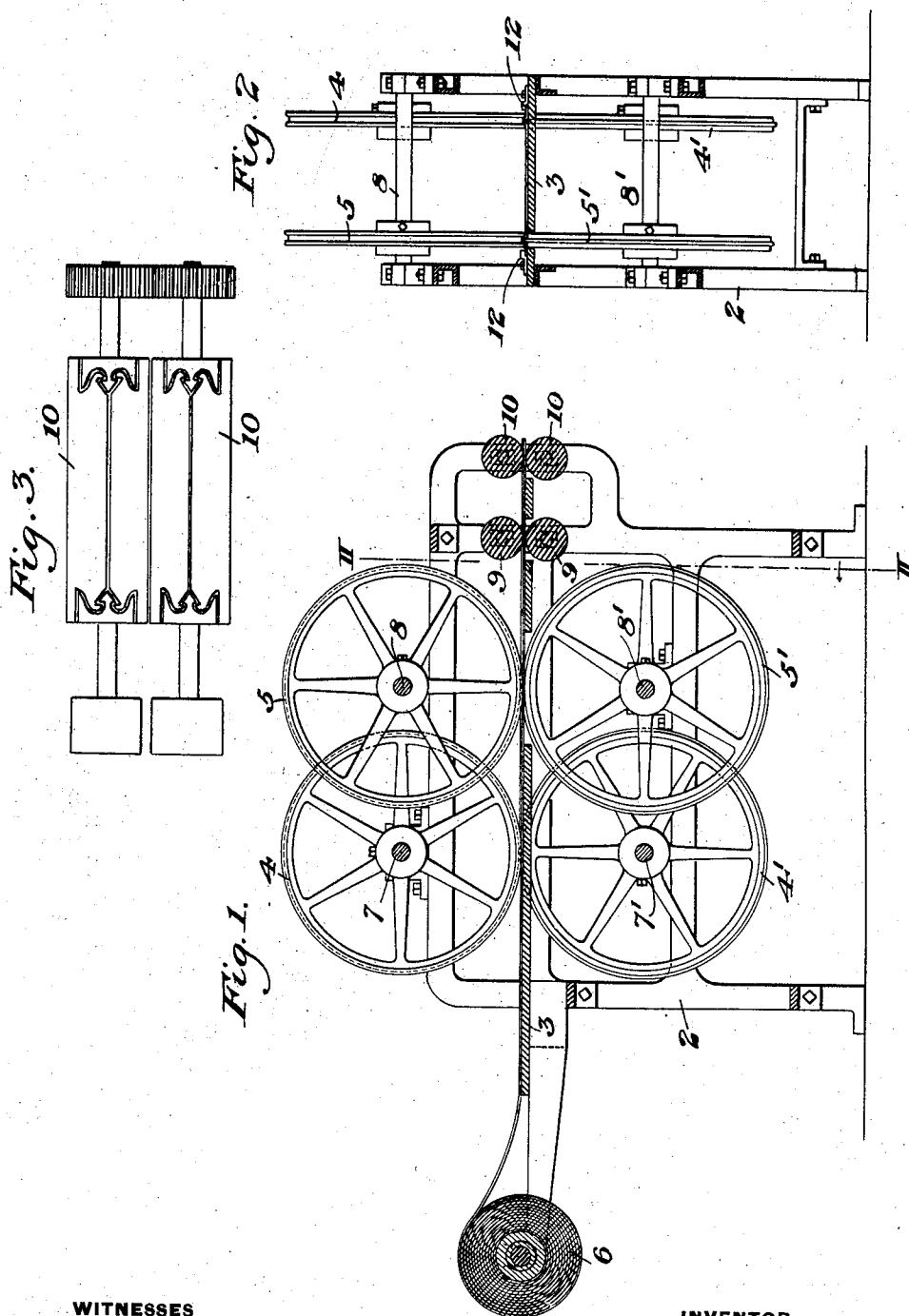
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D. J. REX.
PAPER BOX CREASING APPARATUS.

APPLICATION FILED NOV. 9, 1903.

NO MODEL.



WITNESSES

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UNITED STATES PATENT OFFICE.

DAVID J. REX, OF PITTSBURG, PENNSYLVANIA.

PAPER-BOX-CREASING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 769,235, dated September 6, 1904.

Application filed November 9, 1903. Serial No. 180,293. (No model.)

To all whom it may concern:

Be it known that I, DAVID J. REX, of the city of Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented a new and useful Improvement in Paper-Box-Creasing Apparatus, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a longitudinal vertical sectional view of my improved apparatus. Fig. 2 is a cross-section on the line 11 11 of Fig. 1. Fig. 3 is a detached elevation of the creasing and cutting rolls.

Like symbols of reference indicate like parts wherever they occur.

My invention relates to an improvement in apparatus for creasing paper in the manufacture of paper boxes; and it consists in the combination of two or more pairs of creasing-wheels of comparatively large diameter, each wheel being mounted on a separate shaft and each pair of wheels being out of line with the other pair or pairs, so as to work on the paper at different portions of its length, with suitable feed devices, as is hereinafter more fully described.

I will now describe my invention, so that others skilled in the art may manufacture and use the same.

In the drawings, 2 represents the frame of the apparatus, having a guiding or feed table 3, over which the paper is drawn between the creasing-wheels 4 4' and 5 5', the paper being held on a suitable reel 6 at one end of the apparatus. These creasing-wheels 4 4' and 5 5' are mounted on shafts 7 7' and 8 8', which shafts are journaled on the frame 2. The creasing-faces of these wheels are provided with a tongue and groove adapted to form the desired crease in the paper as it passes between them. The creasing-wheels themselves are of comparatively large diameter, each wheel being mounted on a separate shaft and each pair of wheels being out of line with the other pair or pairs, so as to work on the paper at different portions of its length, the purpose of which is to insure a smooth movement of the paper between the wheels and to

prevent any breaking or tearing of the paper and to insure a perfect crease. The wheels 4 4' and 5 5' are adjustable laterally on their shafts, so that they may be suited to different-sized work.

At the other end of the frame 2 are the feed-rolls 9 9, and beyond them are the creasing and cutting rolls 10 10. These feed-rolls and creasing and cutting rolls may be of the ordinary construction. Power is applied to the creasing and cutting rolls by any suitable means and communicated to the feed-rolls by a suitable belt.

In the operation of my apparatus the paper is fed from the reel 6 along the feed-table 3 and between the creasing-wheels 4 4' and 5 5', which are first adjusted to make the creases at the desired distance apart. The paper as it passes between the wheels is guided by the adjustable guides 12 12 on the table 3 and is drawn forward by the feed-rolls 9 9 and the creasing and cutting rolls 10 10. The paper after it passes from the rolls 10 10 will be in proper form and properly creased and cut to be folded or bent into box form.

Printing devices may be located at any desired point between the reel 6 and the creasing and cutting rolls 10.

The advantage of my invention resides in the fact that each of the creasing-wheels, being mounted on its own separate shaft and the several pairs of wheels being out of line with each other, drawing or tearing of the paper in forming the creases is prevented. This will be appreciated by those skilled in the art who have heretofore encountered more or less difficulty in forming proper creases, especially in heavy material by the ordinary creasing apparatus.

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

1. In a paper-box-creasing apparatus, the combination of two or more pairs of loose contacting creasing-wheels, each wheel being mounted on a separate shaft and movable independently of each other, and each pair of wheels being out of line with the other pair or pairs and suitable feeding devices; substantially as described.

2. In a paper-box-creasing apparatus, the combination of two or more pairs of coacting creasing-wheels, each wheel being mounted on a separate shaft and each pair of wheels being
5 out of line with the other pair or pairs, and suitable feeding devices, substantially as described.

In testimony whereof I have hereunto set my hand.

DAVID J. REX.

Witnesses:

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