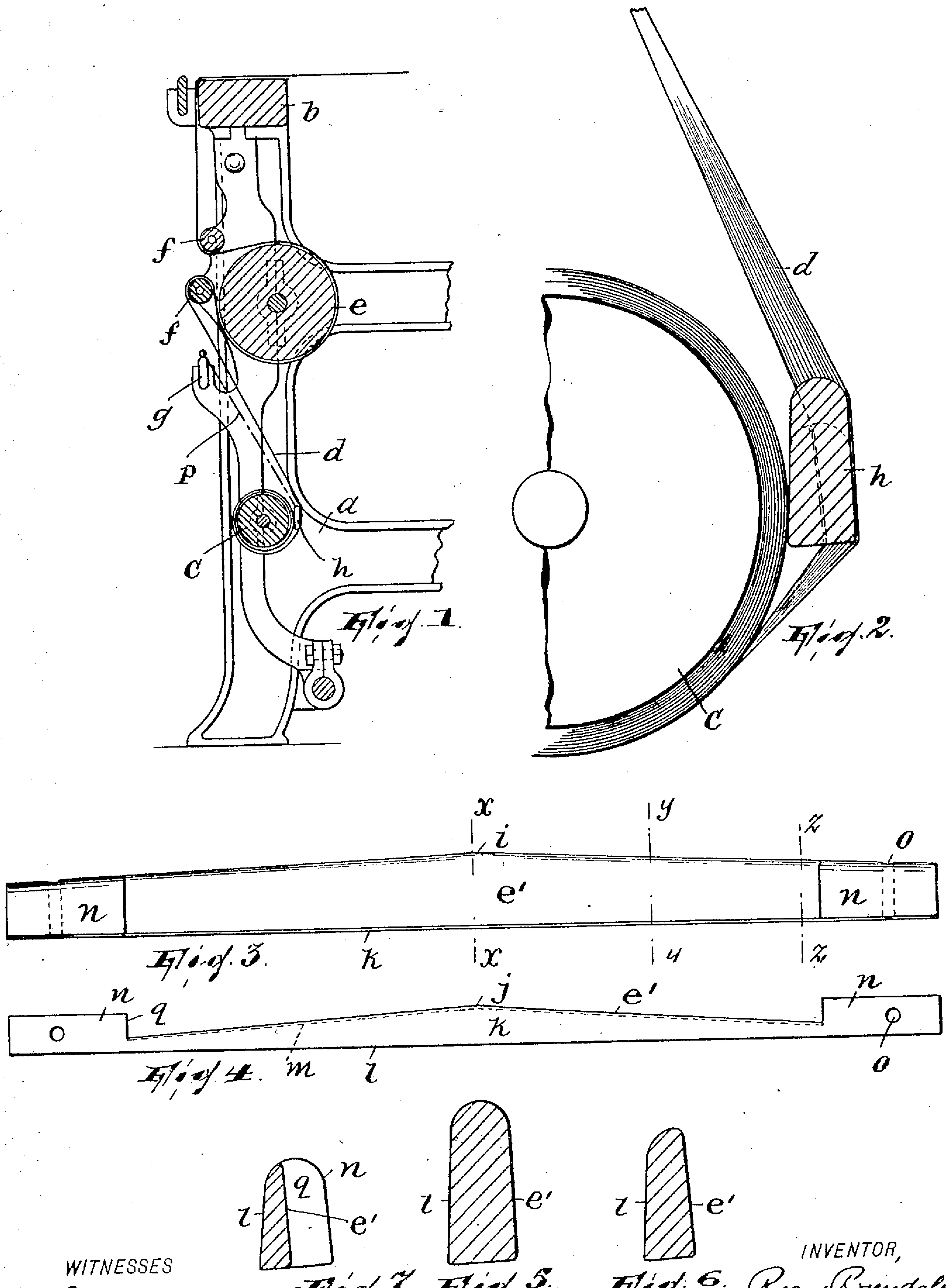
No. 887,428. PATENTED MAY 12, 1908.

R. ROSENDALE.

SMOOTHING DEVICE FOR CLOTH BEAMS.

APPLICATION FILED SEPT. 6, 1907.



WITNESSES

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SMOOTHING DEVICE FOR CLOTH-BEAMS.

No. 887,428. Specification of Letters Patent. Patented May 12, 1908.

Application filed September 5, 1907. Serial No. 391,423.

To all whom it may concern:

Be it known that I, RYAN ROSENDALE, a citizen of the United States, residing in Paterson, Passaic county, New Jersey, have invented certain new and useful Improvements in Smoothing Devices for Cloth-Beams; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

My invention relates to looms of the kind adapted to weave broad goods, and it has for its object to provide a loom with means for causing the cloth to be laid or wound on the beam in smooth condition.

My invention takes cognizance of the fact that the wrinkling of the goods on the cloth beam is due largely to the bellying which occurs in the goods because the structure of its selvage portions is different from that of its body portion; the tendency is therefore for the selvage portions to work toward each other as the goods is wound on the beam, producing of course more or less wrinkling or "cockling".

My invention consists in the combination, with the cloth-beam, of a bar which is suspended in the angle between the cloth and the cloth-beam and which has a portion thereof which is in contact with the cloth of convex formation so as to take care of the belly existing in the cloth and cause the cloth to be laid perfectly flat or smooth on the beam.

My invention further consists in providing a bar to be inserted in the angle between the cloth and the cloth-beam and adapted to act as a means for smoothing-out the cloth as it passes onto the beam with means whereby the cloth will keep the bar in proper position, *i. e.*, against sidewise movement.

My invention will be found fully illustrated in the accompanying drawings, wherein,

Figure 1 is a vertical sectional view of so much of the front portion of a loom as it is necessary to show in order to properly illustrate my invention; Fig. 2 is an end view of the cloth beam and a sectional view of the bar (on line x—x, Fig. 3) in operative position relatively to each other and to the cloth; Fig. 3 is a view of the bar looking from the rear of the loom; Fig. 4 is an underneath view of the bar; and, Figs. 5, 6 and 7 are sectional views on the lines x—x, y—y and z—z, respectively.

In said drawings, a is the loom-frame, b the breast-beam and c the cloth-beam, d being the cloth, which extends over the breast-beam to the cloth-beam and, between them, around the sand-roller e and the guide-rollers f.

g is a spreader or brace forming a part of the frame a and arranged above and parallel with the cloth-beam.

h designates my improved bar for causing the cloth to be properly laid on the cloth-beam. Said bar may be described as follows: It is preferably, though not necessarily, constructed of wood, and, viewing it from the front or rear, it has its top profile one which gradually heightens toward the middle of the bar, as at i, so that the bar, thus viewed, is convex along its top portion. Similarly, viewing the bar from above or beneath, its face e' (which is the face thereof against which the cloth bears) presents a convex profile whose highest part is at the point j, substantially midway of the bar. (See Figs. 3 to 7). The under side of the bar, marked k', and the face l (which is the face thereof which bears against the cloth-beam) are both preferably straight or flat. Furthermore, the bar is slightly thinner in any cross-section thereof at the top than at the bottom, this being due to a slight bevel on the face e', and which is indicated in all the sectional views and by the dotted line m in Fig. 4. At its ends, said bar is formed with the enlargements n which have approximately the thickness of the bar at the point j of its face e'; these enlargements are formed with vertical holes o to receive the wires, cords or the like p which are employed to suspend the bar from the spreader g, and they present the abutments q to the cloth edges.

The bar is arranged with relation to the cloth and the cloth beam substantially as follows: It is placed in the angle between the cloth and the cloth-beam with its straight side down and its flat side against the cloth-beam; the suspending or holding means p is then so adjusted that the bar will stand substantially in the same plane as the axis of the cloth-beam under the combined frictional action thereon of the cloth and cloth-beam,

which tend of course to carry it around with them as the beam rotates. The bulge or belly in the bar, formed where the convexity of the face *e'* and the convexity of the top thereof meet in substantially an edge, adapts itself to the belly in the goods and causes the goods to be kept flat or smooth until it has been laid or wound on the beam. Any tendency of the bar to work laterally is resisted by the cloth, which takes against the abutments *q* at its edges.

It will be understood that the specific arrangement of the bar with relation to the cloth-beam and cloth and the particular construction of the bar herein set forth are presented merely because they are probably the preferable ones; I do not, however, desire to be correspondingly limited,

What I claim being,

1. The combination of the cloth-beam, means for guiding the woven goods thereto, and a bar arranged in the angle between the cloth and the beam and having the face thereof adjacent the cloth convex, substantially as described.

2. The combination of the cloth-beam, means for guiding the woven goods thereto, and a bar arranged in the angle between the cloth and the beam and having its top portion formed to present a convexity to the cloth, substantially as described.

3. The combination of the cloth-beam, means for guiding the woven goods thereto, and a bar arranged in the angle between the cloth and the cloth-beam and formed with a convex face presented toward the cloth and abutments near its ends adapted to be engaged by the edges of the cloth, substantially as described.

In testimony, that I claim the foregoing, I have hereunto set my hand this 21st day of August, 1907.

RYAN ROSENDALE.

Witnesses:

JOHN STEWARD,

WM. D. BELL.