

(No Model.)

C. M. FLEEK & K. KNUDSON.
HARVESTER APRON.

No. 435,623.

Patented Sept. 2, 1890.

Fig. 1.

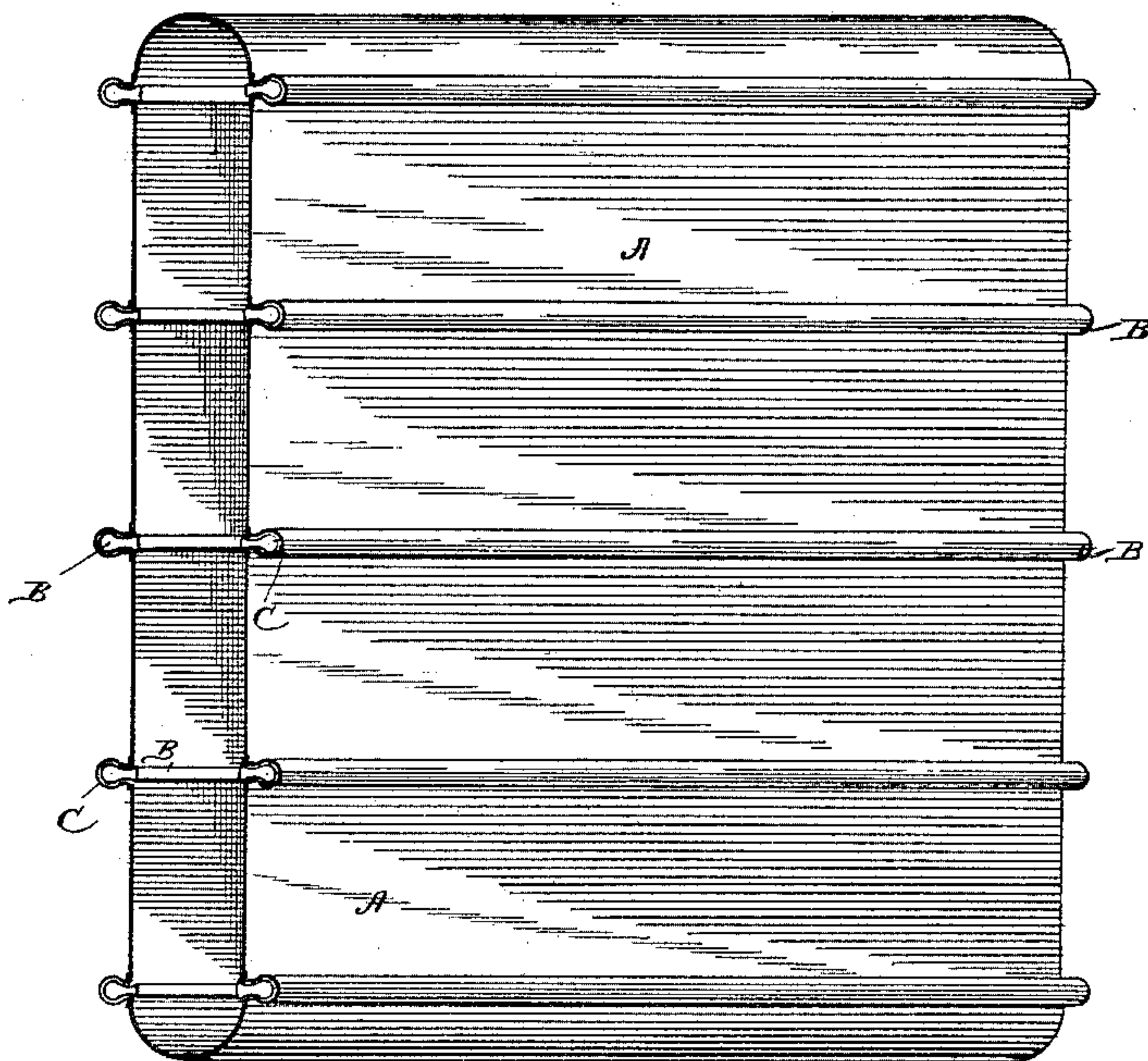


Fig. 2.

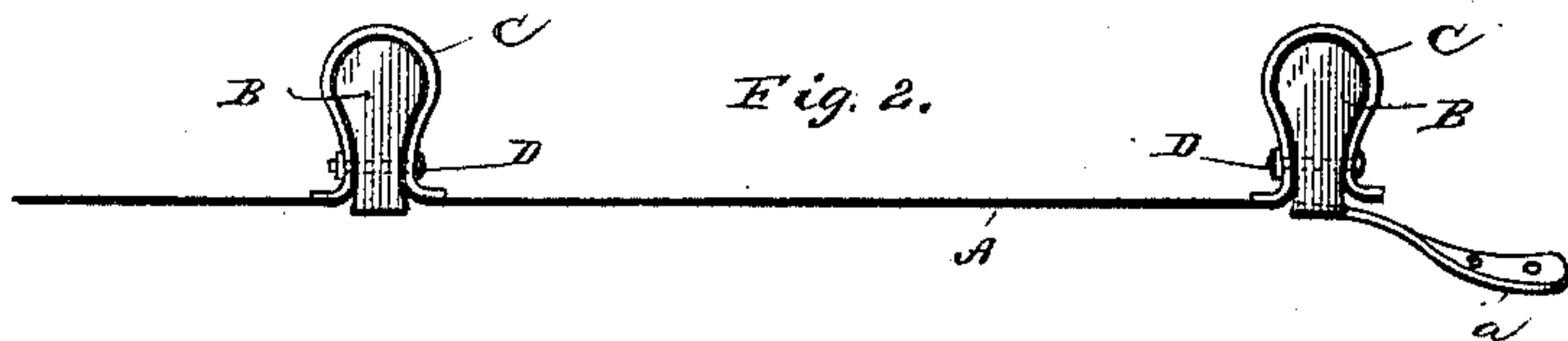


Fig. 3.

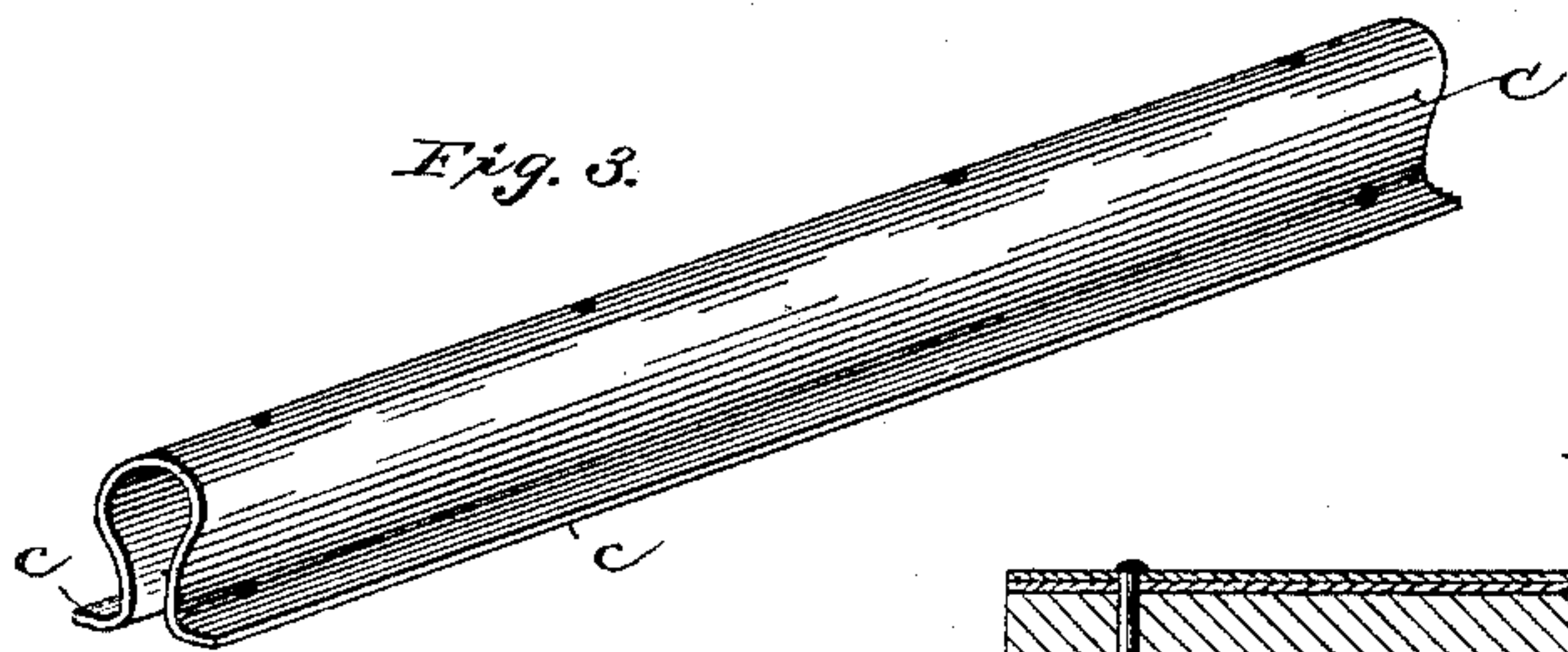
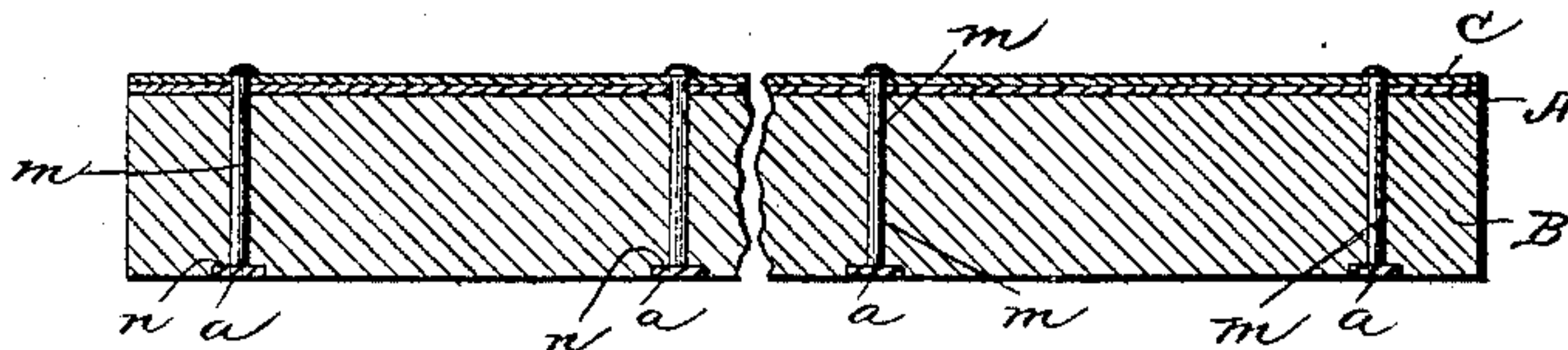


Fig. 4.



Witnesses:

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UNITED STATES PATENT OFFICE.

CHARLES M. FLEEK, OF OSHKOSH, AND KITTLE KNUDSON, OF WINNECONNE,
WISCONSIN.

HARVESTER-APRON.

SPECIFICATION forming part of Letters Patent No. 435,623, dated September 2, 1890.

Application filed April 10, 1890. Serial No. 347,312. (No model.)

To all whom it may concern:

Be it known that we, CHARLES M. FLEEK and KITTLE KNUDSON, citizens of the United States, residing, respectively, at Oshkosh and Winneconne, in the county of Winnebago and State of Wisconsin, have invented certain new and useful Improvements in Aprons and Elevator-Belts for Binders and the Like; and we do 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 the letters of reference marked thereon, which form a part of this specification.

Our invention relates to the manner of providing slats for carrier-aprons, elevator-belts, and the like; and the objects of our invention are, first, to prevent the straw and other material from collecting between the slats and the canvas; second, to provide a means of readily adjusting the slats to different portions of the apron as it becomes worn; third, to greatly simplify the manner of attaching the slats, and, fourth, to increase the strength and durability of the slat and apron.

It consists in inclosing both the slat and canvas in a metallic hood or cover, something after the manner of a dovetail, with the canvas between the slat and hood, so that the metallic hood will operate as a spring to compress and engage the canvas tightly against the slat.

In the accompanying drawings, Figure 1 is a perspective view of the belt; Fig. 2, an end view of the slats and belt; Fig. 3, a separate view of the metallic hood, and Fig. 4 a sectional view showing manner of attaching the straps to the two end slats.

Similar letters refer to similar parts throughout the several views.

A is the apron or belt, B the slat, and C the metallic cover or hood.

Aprons or belts have heretofore been constructed for use upon binders and the like with the slats nailed or riveted to the canvas, but have proven very unsatisfactory, as the slats were easily torn from the canvas in operation, and the straw and other material became wedged between the canvas and slats, greatly interfering with the operation of the machine.

Another form has been to inclose the slats in loops of canvas, formed either in the apron itself, stitched together, or in separate strips sewed thereon. This mode of attachment has also been unsatisfactory, as the greatest wear upon the canvas is at or near the slat where the straw is caught and carried forward by the slat, so that in this manner of attachment the canvas surrounding the slat soon becomes worn and cut by the straw, and the whole apron is thereby rendered useless. In our invention both of these difficulties are obviated. We provide a slat of the shape shown in the drawing B, Fig. 2, place it beneath the canvas, and inclose both it and the canvas from the top with the metallic hood C, in shape similar to the slat, which is made to fit closely and operate as a spring around the slat to engage the canvas closely. It may be locked at each end by the pins D D. To place it in position we simply slide it over the canvas and slat from the end. We provide the flanges c c, extending out upon the canvas, for protection and to prevent straw from collecting, and we also allow the lower portion of the slat B to extend slightly below the canvas, Fig. 2 to prevent the canvas from wearing upon the rollers at each end over which the apron passes.

In aprons of this description it is not necessary that the slats be at regular intervals upon the canvas. So by means of our invention when the canvas becomes worn near the slat the slat can be easily and quickly adjusted to another place by simply removing the pins D D, withdrawing the slat and securing it to another part of the apron in the manner hereinbefore described.

Our invention also enables us to more securely attach to the two end slats the straps connecting the two ends of the apron a a a, as we provide recesses n n n n in the bottom of the slat, into which the strap ends are fitted and attached by bolts or rivets m m m m, passing through the slat and metallic cover, as shown in Fig. 4. The straps being recessed within the slat are prevented from catching and wearing upon the rollers in operation. Therefore,

What we claim as our invention, and desire to secure by Letters Patent, is—

1. An elevator belt or apron comprising a flexible web, a series of slats inclosed within transverse loops or folds of the web, and an elastic sheath surrounding each fold and slat and adapted to be placed upon or withdrawn therefrom, as desired.

2. An elevator belt or apron comprising a flexible web, a series of slats inclosed within transverse loops or folds of the web, and an elastic sheath surrounding each fold and slat, said sheath being provided with flanges at the bottom, constituting a smooth bearing-surface for the web.

3. An elevator belt or apron comprising a flexible web, a series of slats inclosed within transverse loops or folds of the web, and an elastic sheath inclosing each fold and slat, the lower edges of the sheath terminating in a plane above the bottom surface of the slat, whereby the folds of the web are protected from wear.

4. In an elevator belt or apron, the combination of a series of slats inclosed within

transverse folds or loops of the apron-web, a spring-sheath binding the web to the slat and adapted to be withdrawn or inserted in position at will, and locking pins or bolts connecting the lower edges of the sheath and passing through the slat, as and for the purpose described.

5. In an apron or elevator-belt, the combination of the canvas with portions thereof looped between a rod or slat and a metallic cover surrounding the same, pins to normally lock the same, the two end slats being recessed to admit the ends of the connecting-straps, and bolts or rivets to attach them thereto, substantially as shown.

In testimony whereof we affix our signatures in presence of two witnesses

CHARLES M. FLEEK.
KITTLE KNUDSON.

Witnesses:

HENRY BARBER,
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