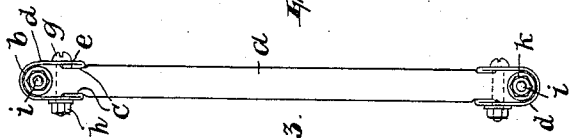
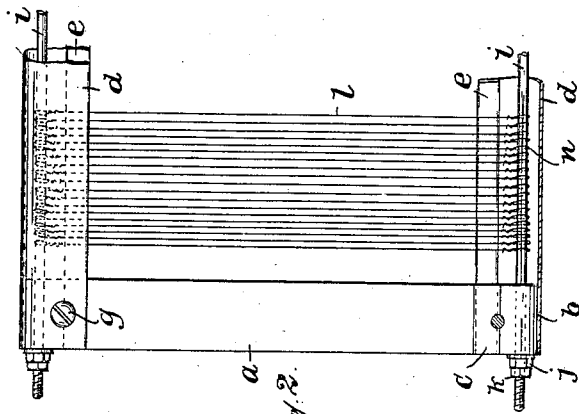
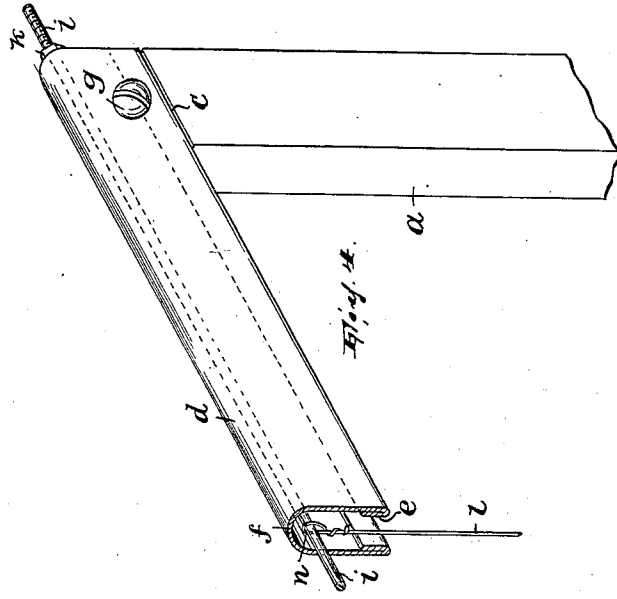
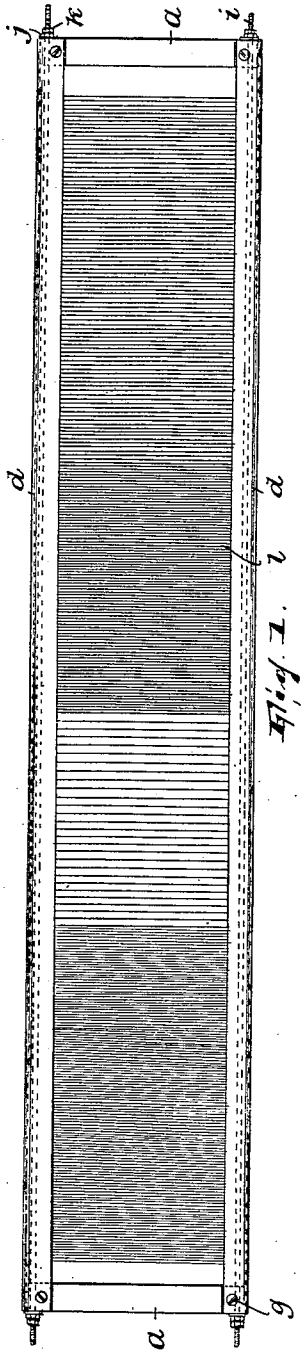


J. C. KAEMPFER.
FALSE REED FOR LOOMS.
APPLICATION FILED OCT. 11, 1909.

977,313.

Patented Nov. 29, 1910.



WITNESSES

Jm. M. Zell.
Elmer Kaufmann.

INVENTOR,
Jacob C. Kaempfer,
BY
J. H. Duward.
ATTORNEY

UNITED STATES PATENT OFFICE.

JACOB C. KAEMPFER, OF NEW YORK, N. Y.

FALSE REED FOR LOOMS.

977,313.

Specification of Letters Patent.

Patented Nov. 29, 1910.

Application filed October 11, 1909. Serial No. 522,109.

To all whom it may concern:

Be it known that I, JACOB C. KAEMPFER, a citizen of the United States, residing in New York city, county of New York, and State of New York, have invented a certain new and useful Improvement in False Reeds for Looms; 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.

This invention relates to reeds for looms and particularly to that class of reeds, known as "false reeds," in which, for purposes understood by those familiar with the art, the dents are arranged for movement transversely. The common form of such reeds is a rectangular wooden frame carrying slender horizontal rods on which are strung the wires which form the reed dents, the rods being inserted at their ends in opposed holes in the side or vertical parts of the frame. In a reed of this kind it is well known that, there being no means to draw the rods taut, said rods sooner or later sag so that the dents do not slide freely thereon and the reed ceases in other respects to perform properly its intended functions. Again, since the ends of the dent-forming wires, which are twisted into loops receiving the rods, are not sheathed or protected, they catch the threads of the warp and seriously interfere with the weaving operation.

My object is to provide a reed, and particularly a reed of the kind indicated above, which shall be as strong and as light, if not more so, than the reed now commonly used, and in which any needed degree of tension may be imposed upon the rods or the like on which the dents are strung, and the ends of the wires or the like forming the dents will be sheathed or substantially inclosed.

In the accompanying drawing, my invention will be found fully illustrated, Figure 1 being a front elevation of the improved reed; Fig. 2 a similar view on a larger scale and showing a fragment of the reed, a portion of which is broken away; Fig. 3 an end elevation of what is shown in Fig. 2; and, Fig. 4 a perspective view on a still larger scale of a fragment of the reed.

In said drawings, *a* designates vertical parts of the uprights forming the sides of

the reed frame. These are preferably composed of cross-sectionally rectangular pieces of wood or other material and each has both ends rounded, as at *b*, and near each end the opposed recesses *c*.

d designates horizontal members rigidly connecting the uprights *a*. Each member *d* is composed of a longitudinal strip of sheet metal bent longitudinally into cross-sectionally U-shaped form, its side walls being parallel and having their longitudinal edges lapped inwardly, as at *e*, Figs. 3 and 4; the bend *f* forming the bottom of the channel in each member *d* is preferably a curve coinciding with the rounded end of each member *a*.

When the members *a* and *d* are assembled, the ends of the members *a* fit snugly in the ends of the channeled members *d*, the recesses *c* in the members *a* receiving the lapped edges of the members *d*. A screw-bolt *g* is passed through the joint formed between each two members *a* and *d*, and carries a nut *h*, whereby parts *a* and *d* are securely clamped together to form a rigid structure. The members *d*, whose channels open toward each other, form housings for the slender rods *i* which extend from end to end of and within said members *d*, penetrating the members *a*. The ends of said rods *i* protrude from the members *a* and are threaded, being provided with the nuts *j*, permitting any desired tension to be imposed upon the rods.

k is a lock-nut for each nut *j*.

l designates the dents, the same being by preference of the usual wire-type, having their ends twisted into the form of loops *n* which are penetrated by the rods *i*, being therefore housed within the members *d*, as best seen in Fig. 4.

It will be observed that according to my construction a reed is produced whose frame is peculiarly light, strong and durable in construction. Any needed tension may be imposed upon the rods *i* upon which the dents are strung (it being observed that when the rods are under tension the rigidity of the frame is if anything increased), and dents may be readily added or removed as occasion requires by simply removing the nuts *j* and *k* at one end of each rod *i*, partly withdrawing the rods to permit the application or removal of dents, and then restoring the parts *i*, *j* and *k* to their normal arrangement.

By forming the members *d* U-shaped in cross-section, their side-walls being parallel and preferably having their longitudinal edges bent back upon themselves, as at *e*,
5 and by fitting the ends of the members *a* snugly into the channels of members *d* and therein securing them by clamping means, the entire structure is not only stiffened but rendered proof against being distorted out
10 of the desired planiform shape under the stress of the adjusting means when the rods *i* are tightened.

Having thus fully described my invention, what I claim as new and desire to secure by Letters Patent is:—
15

The combination of relatively broad parallel uprights, parallel rods penetrating the end-portions of said uprights, dents penetrated at their ends by the rods, parallel
20 cross-sectionally U-shaped members having their open sides facing each other and fitted over the end-portions of said uprights and

inclosing the rods, the portion of the face of each upright which is inclosed within the corresponding member being for the
25 whole extent thereof in contact with the inside face of said member, means, penetrating each member and the end-portions of said uprights, for clamping said members and uprights together at the joints formed be-
30 tween them, and means, bearing against the outer faces of the uprights, for imposing tension on the rods, the longitudinal edges of said members being bent back upon themselves and thereby stiffening said members,
35 substantially as described.

In testimony, that I claim the foregoing, I have hereunto set my hand this 9th day of October, 1909.

JACOB C. KAEMPFER.

Witnesses:

JOHN W. STEWARD,
GEORGE R. MEYERS.