A. J. Nichols.

Reed for Weaving.

No. 40,381. Patented Feb. 14, 1865

Fig: 1.

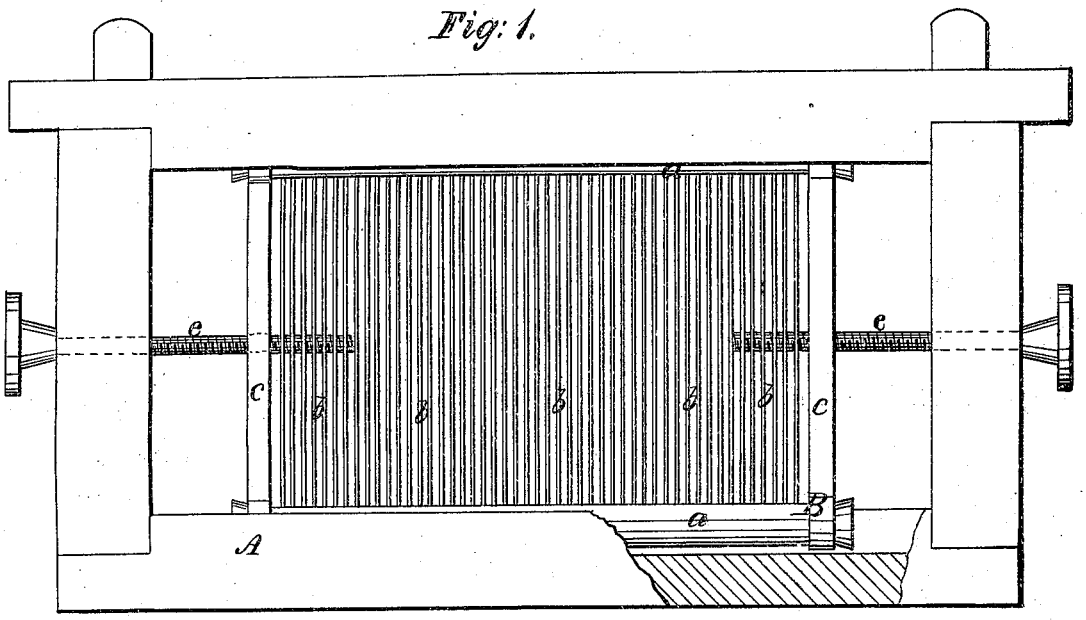
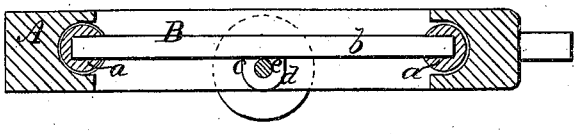


Fig: 2.



Witnesses:

Henry Morris

C. L. Topliff

Inventor:

A. J. Nichols

per Munn & Co

attys

UNITED STATES PATENT OFFICE.

AMBROSE J. NICHOLS, OF PROVIDENCE, RHODE ISLAND.

IMPROVEMENT IN EXPANSIBLE REEDS FOR WARP-DRESSING AND WEAVING.

Specification forming part of Letters Patent No. **46,381**, dated February 14, 1865.

To all whom it may concern:

Be it known that I, AMBROSE J. NICHOLS, of Providence, in the county of Providence and State of Rhode Island, have invented a new and Improved Reed for Warp or Thread Dressing and Weaving; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a sectional front elevation of this invention. Fig. 2 is a transverse vertical section of the same.

Similar letters of reference indicate like parts.

Dresser-reeds, or reeds used for weaving purposes, are generally made just long enough to fill a beam of a certain length, but it frequently happens—in fact it is invariably the case—that there is so much variation in the length of the center beams that it is very difficult to fill or guide the yarn on them evenly, some of the beams being too short and some too long. This difficulty is obviated by the present invention, which consists in a reed for dressing or weaving purposes which is made elastic or arranged in such a manner that it can be expanded and contracted, and that it can be adapted to beams of different length.

A represents a frame, made of wood or other suitable material, in which the reed B is secured. The ribs *a* of the reed, instead of being rigidly attached to the longitudinal rails of the frame A, are made separate from the same, and they are made of strips of india-rubber or other elastic material. Suitable grooves or cavities in the inner edges of the longitudinal rails of the frame form the guides for the ribs of the reeds, and the dents *b* are secured in said elastic ribs at the proper distances apart in the usual manner. The ends of the ribs are firmly secured in cross-bars *c*, which extend parallel with the dents from one rib to the other, as clearly shown in Fig. 1 of the drawings, and serve to hold the ribs in the cavities on the inner edges of the longitudinal rails of the frame A. Said cross-bars are provided with lugs *d*, which are tapped to receive set-screws *e*, by means of which the length of the reed is adjusted. These set-screws pass through the end rails of the frame A, and they are provided with heads forming shoulders, which bear against the outer surfaces of said end rails. By turning the screws in the proper direction the cross-bars *c* of the reed are drawn up against the end rails of the frame A, the ribs are lengthened, and the dents are spread, and by turning the screws *e* in the opposite direction the ribs of the reed contract and the dents close up. By this arrangement the length of the reed can be readily adapted to beams of different length, and my invention is applicable to reeds of any desired description for dressing or weaving purposes.

It is obvious that the form or construction of the frame A has to be modified according to the loom or dressing-frame in which the reed is to be used, but any skillful mechanic will be able without further instruction to apply some device for holding my elastic reed to any machine for weaving or dressing yarn in which the same is to be used.

I am aware that an expanding reed has before been made with elastic ribs.

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

The combination of the cross-bars *c c* and screws *e* with the elastic ribs *a a* and grooved frame A, all constructed and arranged as and for the purpose herein specified.

AMBROSE J. NICHOLS.

Witnesses:

GEO. H. DOWNER,

JOS. BROWN, Jr.