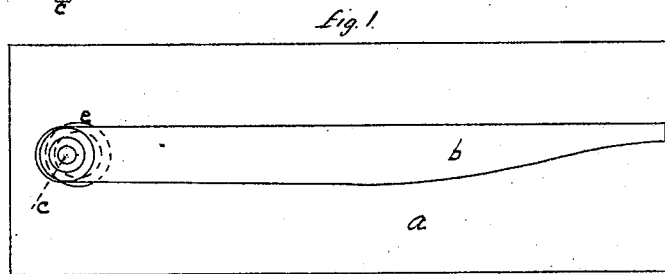
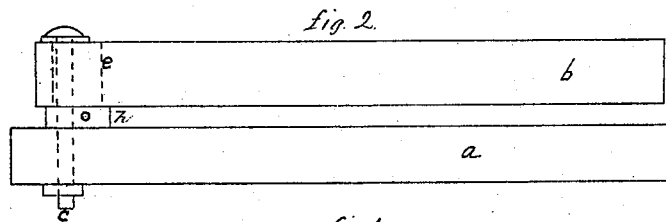
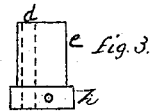


Allen & Moody,

Shuttle Binder.

No. 111,506.

Patented Feb. 7. 1871.



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NICHOLAS J. ALLEN AND JAMES C. MOODY, OF BRUNSWICK, MAINE.

Letters Patent No. 111,506, dated February 7, 1871.

IMPROVEMENT IN ADJUSTABLE SHUTTLE-BINDERS.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern :

Be it known that we, NICHOLAS J. ALLEN and JAMES C. MOODY, of Brunswick, in the county of Cumberland and State of Maine, have invented a new and useful improved Binder-Pin; and we do hereby declare the following to be a full, clear, and exact description thereof, which will enable others to make and use our invention, reference being had to the accompanying drawing forming part of this specification, in which—

Figure 1 is a top plan.

Figure 2 is a side elevation.

Figure 3 is a detail of the eccentric and socket.

Figure 4 is a top view of fig. 3.

The purpose of our invention is to provide an improved method of adjusting the binder in looms to the size of the shuttle, as, for instance, when the shuttle has become worn down to less width than it had originally by long use.

This adjustment has sometimes been made by simply knocking the pin with a hammer. This method is, of course, destructive to both pin and binder.

We are aware of other methods involving more or less inconvenience and trouble.

The manner we have invented, in which this purpose is accomplished, may be thus described :

a shows the bed.

b, the binder.

c, the pin or bolt.

d, the hole or socket in the piece *e*.

It will be observed that the hole *d* is eccentric in the cylindrical piece *e*. This piece *e* fits into a hole in the binder *b*, (see fig. 2.)

The bolt or pin *c* is held in place when passed through the bed by a nut on the bottom thereof.

The binder is regulated and adjusted as follows :

The hole or holes *f*, in the edges of the flange or rim *h*, are to admit a removable pin or small lever to be worked by the hand.

When the space between the binder and the back piece is to be narrow, so as to insure the proper direction to the shuttle, then the eccentric cylindrical piece *e* is moved in one way, and when the said space is to be widened, in the other.

When adjusted as desired, the nut on the bottom of the bolt *c* will, by being screwed up, hold the binder wherever thus placed.

Thus the binder can be adjusted so as always properly to direct the shuttle, and this with great ease, facility, and exactness.

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

The combination, with the binder *b*, of the bolt *c*, socket *d*, eccentric piece *e*, and flange *h*, all arranged and operating as described.

NICHOLAS J. ALLEN.

JAMES C. MOODY.

Witnesses:

HARVEY M. DOUGHTY,

DANL. ELLIOTT.