Jan. 9, 1923.

J. F. UPCHURCH.

1,441,895.

MOTE KNIFE SUPPORT.

FILED FEB. 23, 1922.

Fig. 1.

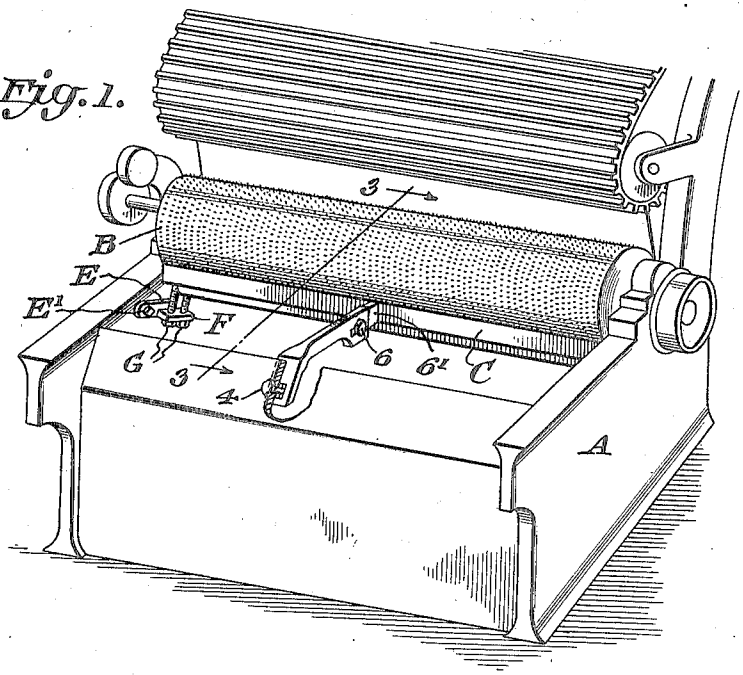



Fig. 2.

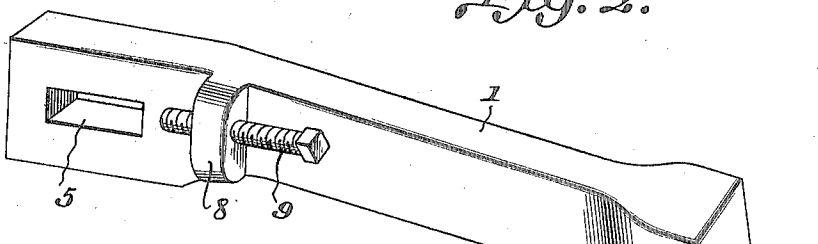



Fig. 3.

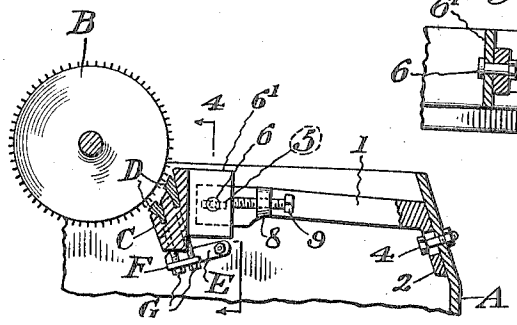
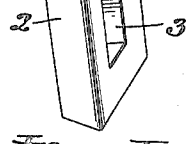



Fig. 4.




Inventor
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# UNITED STATES PATENT OFFICE.

JOSEPH F. UPCHURCH, OF LA GRANGE, GEORGIA.

## MOTE-KNIFE SUPPORT.

Application filed February 23, 1922. Serial No. 538,365.

*To all whom it may concern:*

Be it known that I, JOSEPH F. UPCHURCH, a citizen of the United States, and a resident of La Grange, in the county of Troup and State of Georgia, have invented certain new and useful Improvements in Mote-Knife Supports, of which the following is a specification.

In the usual type of cotton cards, particularly of the revolving flat top type, the mote knives or card grids are approximately forty inches in length and are small in cross section. Unless properly supported these knives flex easily, and any such flexure is detrimental to the operation of the machine.

An object of my invention is to provide supporting means for mote knives that will prevent any flexure and hold the knives firmly in any position to which they may be set.

Another object is to provide supporting means that will prevent any vibration of the knives that might otherwise cause them to come into contact with the licker-in or the material thereon, and cause considerable damage.

A further object of the invention is to provide supporting means that is capable of minute and exact adjustment, but through simple devices can be easily set in any desired position.

Further objects of the invention will be apparent from the following detailed description and the appended claims.

In the drawings:

Figure 1 is a perspective view of parts of a card showing my invention in its relation to the other parts,

Figure 2 is perspective view of the brace.

Figure 3 is a sectional view on the line 3—3 of Figure 1.

Figure 4 is a sectional view on the line 4—4 of Figure 3.

A frame A of a conventional form of card is provided with a licker-in B and a bracket C for the mote knives D. The bracket is supported at its ends by arms E bolted to the frame A at E′. These arms have off-sets F through which pass adjusting screws G for the mote knives. These parts are old and common and form no part of my invention except in combination with other features.

I provide a brace 1 of the general form shown in Figure 2, which has a downturned end 2 provided with an elongated slot 3 through which passes a bolt 4 by means of which the brace is adjustably fastened to the frame of the card A as shown in Figure 1. This provides means for an up and down adjustment of the brace.

At about its middle, the bracket C has an offset lug 6′ and the end of the brace has an elongated slot 5. This end of the brace is adapted to lie against the side of the lug 6′ and a bolt 6 with nut 7 adjustably connects the brace to the lug and thereby to the bracket C. Through this adjustment the bracket C with mote knives can be held at its desired position with relation to the licker-in.

At a slight distance from the slot 5 the brace is provided with an ear 8, preferably integral therewith, into and through which is threaded a screw 9. One end of this screw is adapted to bear against the offset lug 6′, as clearly illustrated in Figure 3. It is obvious that a very exact adjustment can be obtained by loosening the nut 7, turning the screw 9 to the desired degree, holding the lug 6′ firmly against the screw, and tightening the nut 7.

This supporting brace also permits the center of the mote knife bracket to be raised or lowered slightly by means of the bolt and slot connection 4 and 3. It is evident that any desired adjustment may be obtained and that the center of the bracket C may be held firmly so that it will be straight and no sagging or vibration of the mote knives will be permitted. Any desired readjustment can be quickly made without any difficulty and the parts retained in their new position. The adjustments permitted by the brace together with the adjustment of the knives through the screws G enable the knives to be set and held in the exact position desired.

While I have shown and described the preferred form of my device, it is obvious that certain changes may be made in form and position without departing from the spirit of the invention as set forth in the claims.

I claim as my invention:

1. A mote knife support comprising a bracket for the mote knives, a central lug on said bracket, a brace member having a horizontal pin and slot connection at one end with the lug and a vertical pin and slot connection at the other end with the frame of the machine, and means for hold-

ing said connections firmly in any desired position of adjustment.

2. A mote knife support comprising a bracket for the mote knives supported at its ends on the machine frame, a brace member having an adjustable connection with the central portion of the bracket, and an adjustable connection at its other end with the machine frame, means for holding the bracket in adjusted position, and means for holding the brace in adjusted position.

3. A mote knife support comprising a bracket for the mote knives supported at its ends on the machine frame, a brace member engaging the central portion of the bracket, an adjustable connection therebetween, means for holding the bracket in adjusted position, and means for connecting the brace to the frame of the machine.

4. A mote knife support comprising a bracket for the mote knives, means for adjusting the knives in said bracket, a brace engaging the central portion of the bracket, means adjustably connecting the brace and bracket, and means adjustably connecting the brace and machine frame.

5. A mote knife support comprising a bracket for the mote knives, means for adjusting the knives in the bracket, and a brace connecting the central portion of the bracket and machine frame and providing means for adjustments of the bracket in vertical and transverse horizontal planes.

6. A mote knife support comprising a bracket for the mote knife, means connecting the ends of the bracket with the machine frame, a brace connecting the central portion of the bracket with the machine frame, and providing means for adjustments of the bracket in a vertical plane and a transverse horizontal plane.

7. A mote knife support comprising a bracket for the mote knives, a brace connected at one end to the bracket intermediate its ends, and at the other end to the machine frame, means at the connection of the brace and bracket permitting adjustment of the bracket in a horizontal transverse plane, and means at the connection of the brace and machine frame permitting vertical adjustment of the brace.

8. In a mote knife support comprising a bracket, a brace having a horizontal portion with a slot therein for adjustable attachment to said bracket, and a downturned end with a slot therein for adjustable attachment to the machine frame.

9. In a mote knife support comprising a bracket, a brace having a horizontal portion with a horizontal slot therein for adjustable attachment to said bracket, and a downturned end with a vertical slot therein for adjustable attachment to the machine frame.

10. In a mote knife support comprising a bracket, a brace having a horizontal portion with a slot therein for adjustable attachment to said bracket and a lug adjacent thereto and carrying a set screw, and a downturned end with a vertical slot therein for adjustable attachment to the machine frame.

In testimony whereof I have hereunto subscribed my name.

JOSEPH F. UPCHURCH.