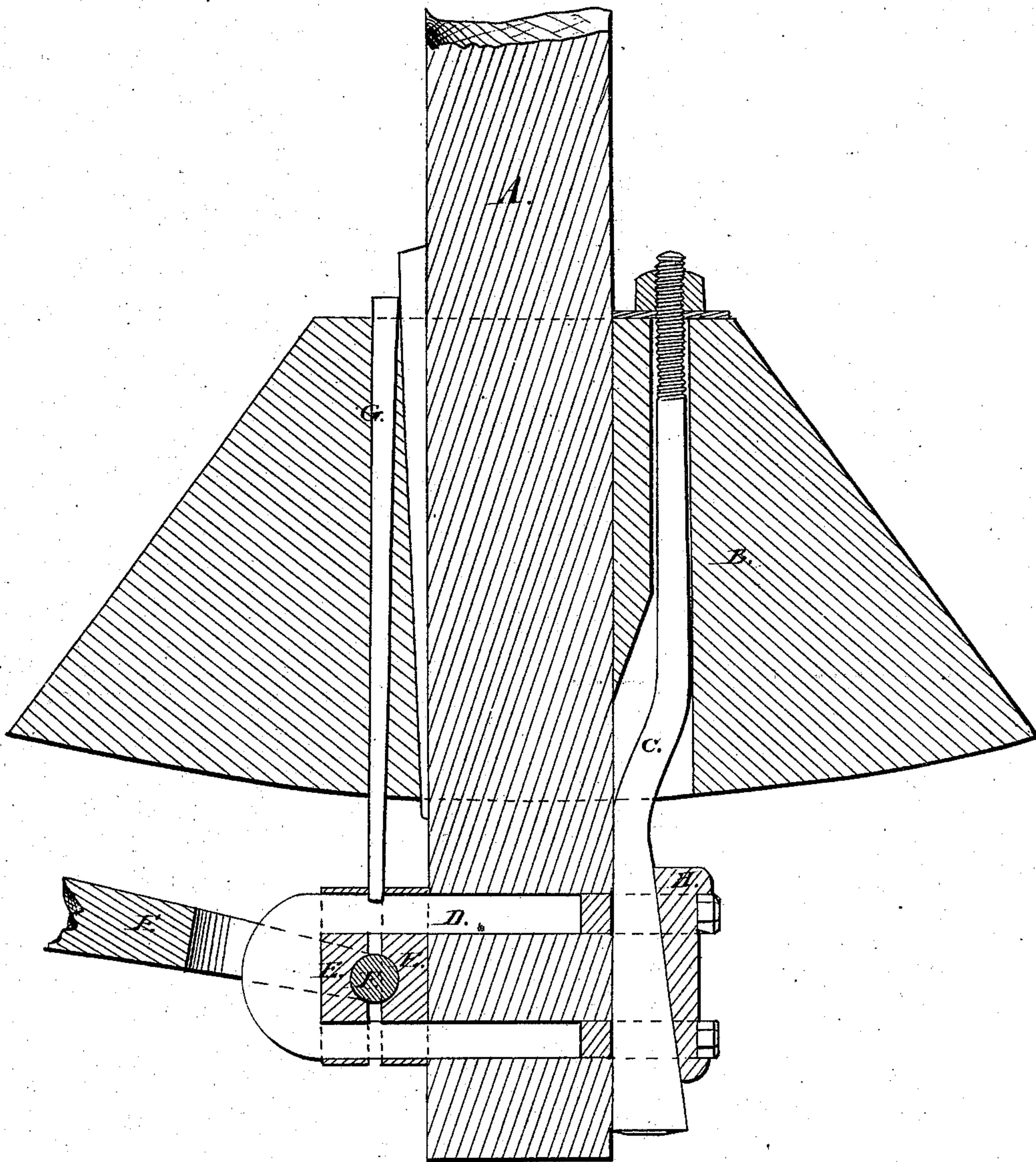


Friend & Annable

Tanning Mill.

Nº 100,519.

Patented Mar 8, 1870.



Witnesses:
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JOHN P. FRIEND, OF PEABODY, AND BENJAMIN R. ANNABLE, OF SALEM,
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Letters Patent No. 100,519, dated March 8, 1870.

IMPROVEMENT IN HIDE-MILLS.

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

We, JOHN P. FRIEND, of Peabody, in the county of Essex, and State of Massachusetts, and BENJAMIN R. ANNABLE, of Salem, in said county and State, have invented certain Improvements in Hide-Mills, of which the following is a specification.

Our invention relates to the method of connecting the pitman, which actuates the beater of the mill, with the vibrating arm upon which the beater is hung, (below the beater,) in such a manner that the connection is made more perfectly than heretofore, and the parts may be tightened or adjusted from the top of the beater with less difficulty and trouble than is the case with the present method of adjusting the parts; and

It consists, for this purpose, in making the connection of the pitman and vibrating arm by means of a strap, which passes through or around the vibrating arm, having a bearing for the end of the pitman on one side, and a gib and key on the other side, the key passing up through the beater, and adjusted by means of a nut on the top of the beater; and in carrying an oil-tube from the working parts up through the beater, so that the connections may be lubricated.

Our invention is designed to overcome the difficulties and imperfections of the present method of adjusting the parts before described in hide-mills. As at present constructed and operated, it is very difficult to get at the connections for the purpose of taking up the wear which is the result of the continual jar and vibration.

It has been found from experience that it is essential to make this connection below the beater, and consequently, below the hide-box, and from this cause, whenever the connection wears loose, there are no adequate means for readily adjusting it, and no method of lubricating the wearing parts. The wear is thus much greater, and there is more danger of injury to the mill from this cause.

All the filth from the hide which is being milled passes down into the cavity below the hide-box, where these connections are located, making it a very disagreeable process to keep the connections in order, or to get at it for lubrication.

Our method of making these connections avoids all these difficulties by making the parts adjustable and capable of being lubricated from the top of the beater, and the result is that the mill operates more perfectly,

with less wear and injury to the moving parts, and with greater economy.

The drawing represents a vertical section of the beater, the lower part of the vibrating arm, and the parts employed in our new method of making the connection.

A represents the vibrating arm.

B is the beater, which is attached to the vibrating arm in any suitable manner.

C is a key, which passes through a slot in the strap D, up through the beater to the top, where it is adjusted by a nut. The lower part of the key C is wedge-shaped, to correspond with the shape of the gib H.

The strap D is made of iron, or other suitable material, and passes through the vibrating arm. It has a bearing, E E, on the side opposite the key C, for the purpose of holding the end of the pitman F. This bearing is made wider than the strap D, for the purpose of shouldering against the side of the vibrating arm.

G is an oil-tube, which passes down through the beater B, through the strap D, and into the bearing E.

When the pitman F becomes loose from wear or other causes, it is only necessary to tighten the nut on the top of the beater, which raises the key C, drawing the strap through the vibrating arm, and tightening the bearing E E, which incloses the end of the pitman.

We claim as our invention—

1. Connecting the pitman and vibrating arm of a hide-mill by means of a strap secured by a key, which is adjusted on the upper side of the beater, in the manner substantially as set forth and shown.

2. The combination of the bearing E E with the movable strap D, which is moved by a wedge-shaped key at the other end of the strap, adjusted from the upper side of the beater, substantially as described.

3. The tube G, passing down from the upper side of the beater to the bearing E E, for the purpose set forth.

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Witnesses:

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