No. 610,760. Patented Sept. 13, 1898.

T. E. KEAVY.

BUFFER FOR SHOE OR OTHER BUFFING MACHINES.

(Application filed July 22, 1897.)

(No Model.)

Fig. 1.

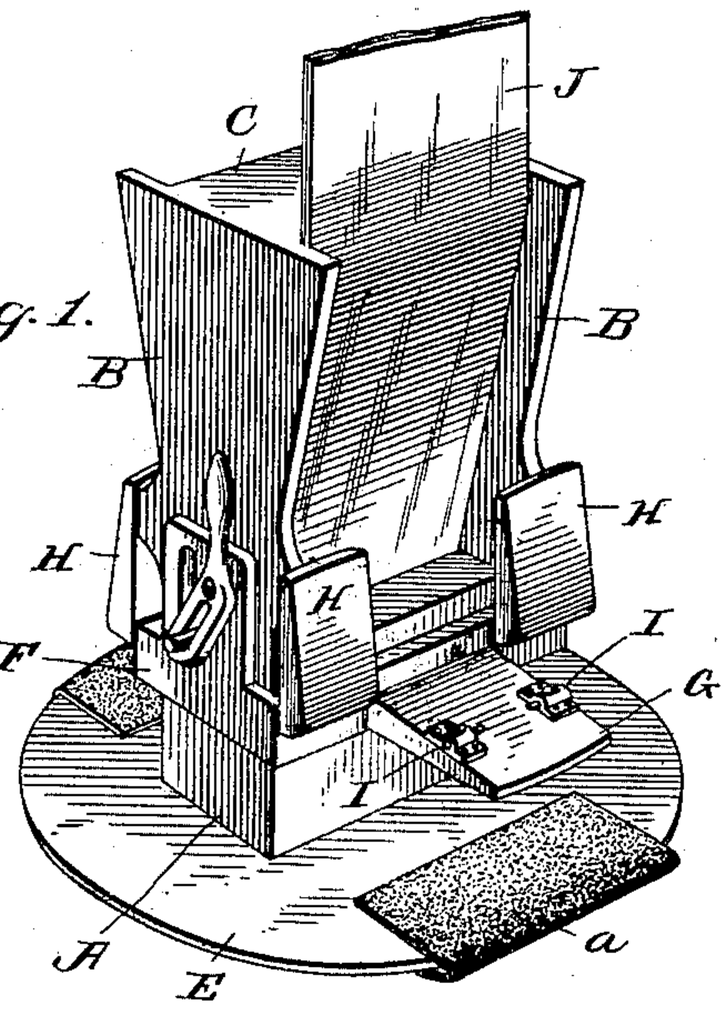


Fig. 2.

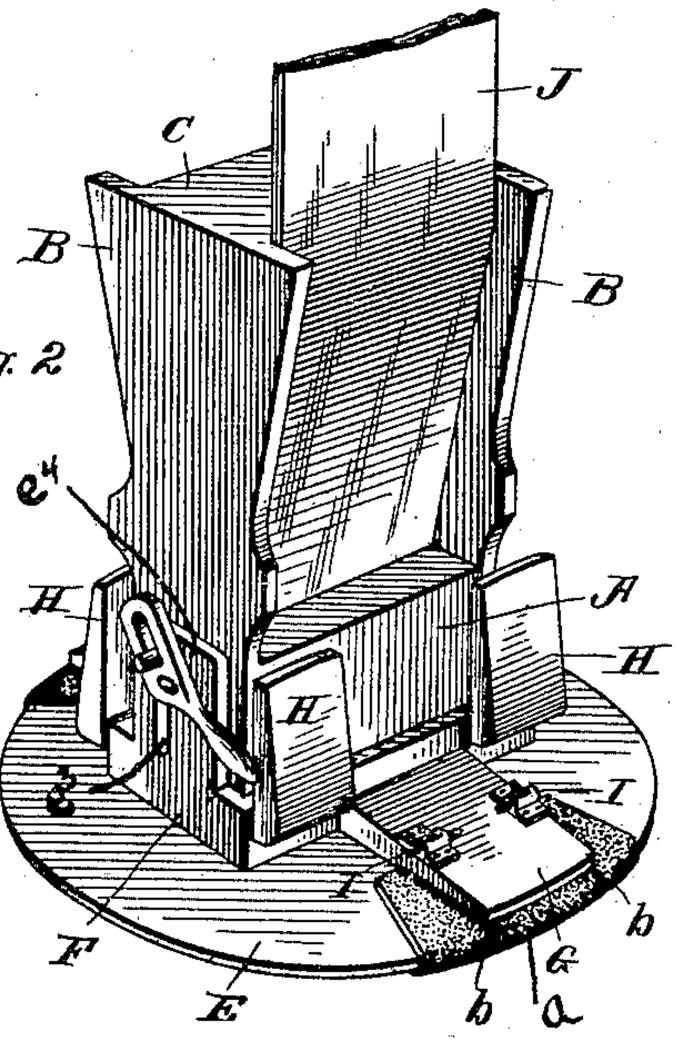
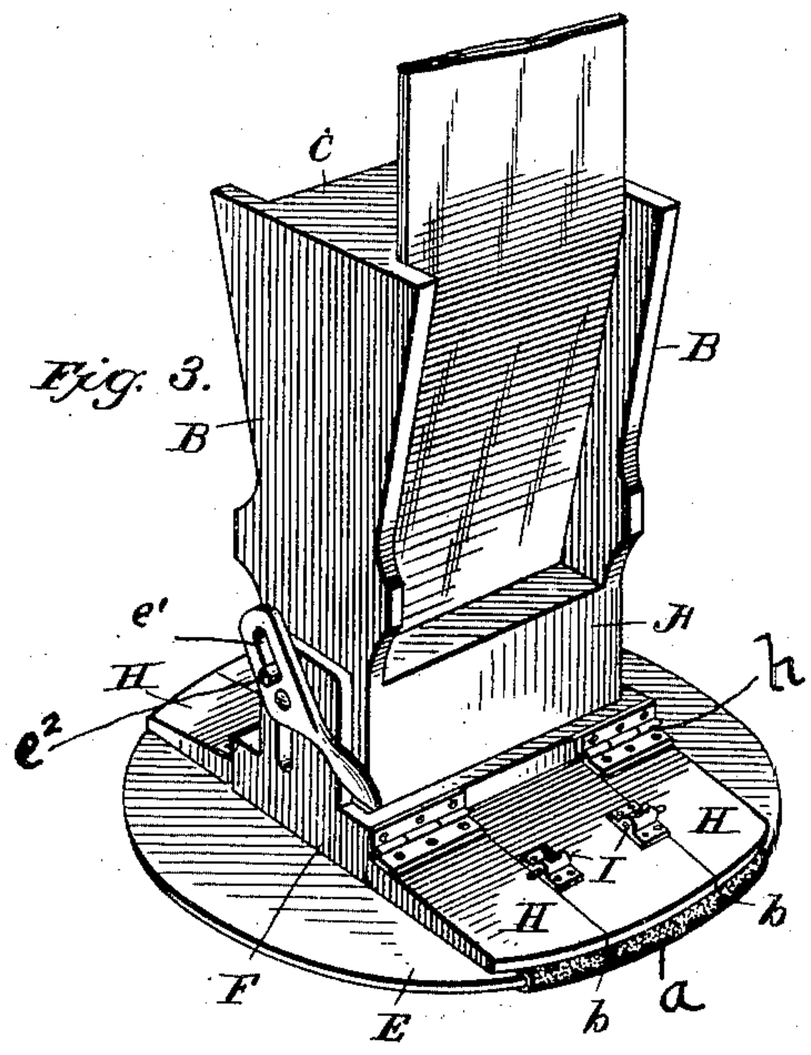


Fig. 3.



Witnesses

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UNITED STATES PATENT OFFICE.

THOMAS E. KEAVY, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO THE STANDARD BUFFING MACHINE COMPANY, LIMITED, OF SAME PLACE.

BUFFER FOR SHOE OR OTHER BUFFING MACHINES.

SPECIFICATION forming part of Letters Patent No. 610,760, dated September 13, 1898.

Original application filed January 5, 1897, Serial No. 618,036. Divided and this application filed July 22, 1897. Serial No. 645,595. (No model.)

To all whom it may concern:

Be it known that I, THOMAS E. KEAVY, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented a certain new and useful Improvement in Buffers for Shoe or other Buffing Machines, of which the following is a specification.

The present invention relates to sandpapering and buffing machines, and more particularly to that type of such machines disclosed in Letters Patent of the United States Nos. 559,491 and 578,214 and in certain pending applications filed by me in the United States Patent Office, the present application being a division of application filed by me the 5th day of January, 1897, Serial No. 618,036.

The object of the present invention is to produce a chuck for a sandpapering and buffing machine having a simple and efficient clamping device arranged to hold the abrasive strip in position upon the chuck and so arranged as to assist the operator in conforming the ends of said material to the periphery of the chuck.

To the above end the present invention consists of the devices and combination of devices which will be hereinafter described and claimed.

The present invention is illustrated in the accompanying drawings, in which—

Figure 1 shows a perspective view of the buffer or chuck with the clamp raised and the ends of the abrasive material turned up over the periphery of the chuck, but not conformed thereto. Fig. 2 is a similar view with the clamp lowered, but the side clamping members raised. Fig. 3 is a view similar to Fig. 2 with the side clamping members lowered.

Similar letters of reference refer to corresponding parts throughout the several views.

The chuck shown is in its general construction substantially similar to the chuck disclosed in Patent No. 578,214, hereinbefore referred to, and comprises a core A, connecting two side bars B, said side bars being connected at their upper ends by a bridge C, by means of which the chuck is secured to the arbor or shaft of the buffing-machine.

A disk or holder E is secured to the lower end of the core A, and said core and disk are slotted, the slot (not shown) extending diametrically across the face thereof, the abrasive material J leading through said slot, all as in Patent No. 578,214.

Suitable pads (not shown) of felt or other suitable material may be placed upon the face of the disk E to support the working portion of the abrasive strips J, which are drawn down through the core A and disk E with their abrasive surfaces turned toward each other, and the free ends of the strips J are drawn in opposite directions across the face of the disk E, turned up over the periphery of said disk, conformed to said periphery, as shown at *a*, (see Fig. 3,) and clamped in position thereon.

In the patent above referred to in order to cause the strips of abrasive material to conform to the periphery of the disk or chuck the ends of the strips were slitted or "stripped" and the stripped portion overlapped upon the rear face of the disk, thus taking up the fullness. Such "stripping" of the ends of the abrasive material, while enabling the abrasive material to be accurately conformed to the periphery of the disk or chuck, necessarily consumed much time of the operator, inasmuch as it is necessary to renew the abrasive surfaces many times during the day.

In the present invention the stripping of the ends of the abrasive material is done away with and said material is accurately conformed to the periphery of the chuck or disk by folding the turned-over end at each side of a central portion, whereby the fullness is taken up and, as shown in Fig. 3, said material is caused to follow the contour of the periphery of the chuck or disk E.

In the present invention I have devised a clamp which will enable the operator to take up the fullness of the ends of the abrasive strips where said strips pass over the periphery of the disk or chuck E and to conform the strip to said periphery without the necessity of stripping or slitting the ends thereof, said clamp being arranged to preliminarily clamp portions of the strip at the central portion to hold the strip while the operator is folding the sides thereof, as shown at *b*, to take up the pucker or fullness thereof preparatory to

finally clamping it in position. The clamp comprises a frame F, arranged to surround the side bars B and core A and to slide up and down thereon toward and from the rear face of the disk E. Secured to the frame F, or formed integrally therewith and projecting from opposite sides of said frame, are the initial or central clamping members G, said clamping members G being adapted to engage and clamp the central portion of the ends of the strips J against the rear face of the disk E when the clamp F′ is lowered preparatory to folding the sides of said strips to take up the fullness therein to conform the doubled portion of the strips to the periphery of the disk R.

Upon each side of the feet G are side clamping members H, which are hinged to the frame F at *h*, as clearly shown, and arranged to swing up and down away from and toward the rear face of the disk E, said clamping members H being turned down after the abrasive strip has been folded, as described, to clamp said folded portion *b* and complete the clamping of the strips in adjusted position.

Any suitable means may be provided to hold the side clamping members H in their clamping position, that illustrated in the drawings comprising bolts I, mounted on the central clamping members G and arranged to be shot over the upper surface of the side clamping members H.

In the operation of the present invention the strips J of abrasive material are laid with their abrasive surfaces adjacent to each other and drawn down through the slot in the core H and out of the slot in the disk E, the ends of the strips J being drawn across the face of the disk E and turned up over the edge thereof. The clamp is now lowered by means of the lever D and the central clamping members caused to engage and clamp the central portions of the strips J against the rear face of the disk E. The sides of the strips J at each side of the clamping members G are now folded, as shown at *b*, to take up the fullness and conform the strips to the periphery of the disk E, after which the clamping members H are turned down on the folded portions and locked by the bolt I.

Any suitable means may be provided for raising and lowering the clamp F′, that shown in the drawings comprising a lever D, which is fulcrumed at *e* to the frame F, said lever having a slot *e′* in one end, which engages a pin e^2, fitted in one of the side bars B, said pin passing through a slot e^3 in an upturned lug e^4 on the frame F.

While I have particularly described a form of clamp for conforming the ends of the strips J to the periphery of the disk E, I do not consider the present invention as limited thereto; but,

Having fully described the construction and mode of operation of my invention, I claim as new and desire to secure by Letters Patent of the United States—

1. In a sandpapering and buffing machine, the combination with a chuck comprising a disk, of a strip of abrasive material having its free end turned up over the periphery of said disk, and folded upon each side of its central portion to conform to the periphery of said disk, and a suitable clamp to hold said material in position on the disk, substantially as described.

2. In a sandpapering and buffing machine, the combination with a chuck comprising a disk, of a strip of abrasive material drawn across the face thereof, and having its end turned up over the periphery of the disk, and a clamp to engage the end of said strip, said clamp having independent clamping members, substantially as described.

3. In a sandpapering and buffing machine, the combination with a chuck comprising a disk, of a clamp movable toward and from the rear face of said disk, said clamp having independent clamping members, substantially as described.

4. In a sandpapering and buffing machine, the combination with a chuck comprising a disk, of a strip of abrasive material having its free end turned up over the periphery of said disk and a clamp having a central clamping member arranged to clamp the central portion of the end of said material, and side clamping members arranged to clamp the folded portion of the abrasive material at each side of the central clamping member, substantially as described.

5. In a sandpapering and buffing machine, the combination with a chuck comprising a disk, of a clamp movable toward and from the rear face of said disk, said clamp having rigid clamping members and hinged clamping members, and means to hold said clamp in clamping position, substantially as described.

6. In combination, a disk, a member which carries said disk, a clamp adapted to operate in conjunction with said disk, and secondary clamps located adjacent to the primary clamp for holding the ends of the abrasive material in position when approximately conformed to the periphery of the disk.

7. A buffer consisting of a chuck comprising a disk, a clamp fitted to the chuck and having central clamping members projecting therefrom, side clamping members hinged to the clamp and adapted to be swung downward into active position, means for operating the clamp, and means for holding the side clamping members in their active position, as and for the purpose set forth.

In testimony whereof I have hereunto affixed my signature in the presence of two subscribing witnesses.

THOMAS E. KEAVY.

Witnesses:
E. C. WURDEMAN,
SAMUEL L. TAYLOR.