H. G. BALLOU.

BUFFING MACHINE.

APPLICATION FILED MAR. 3, 1921.

1,418,863. **Patented June 6, 1922.**

Fig. 1.

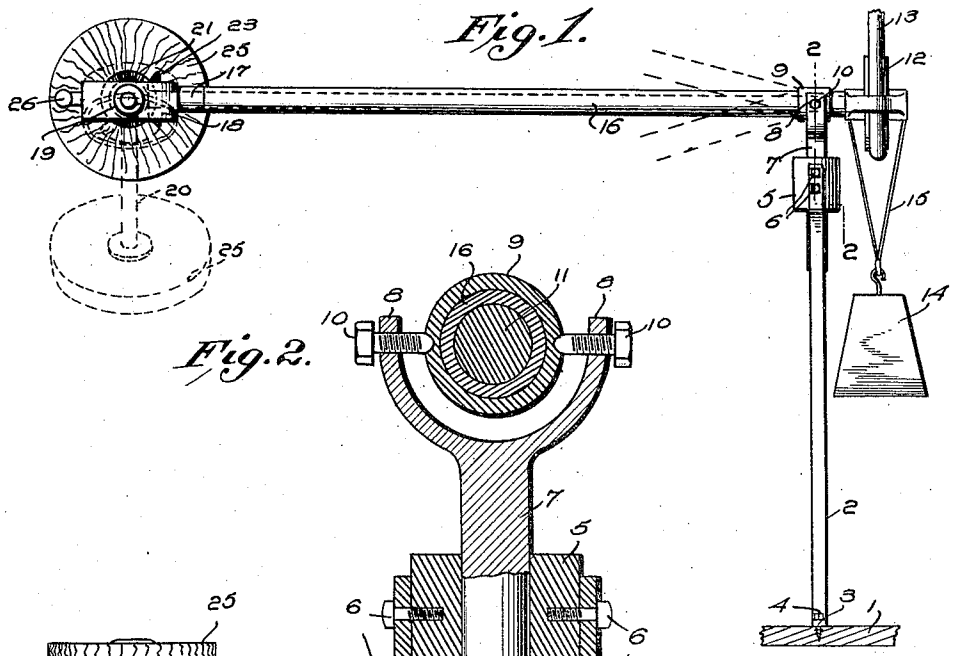


Fig. 2.

Fig. 3.

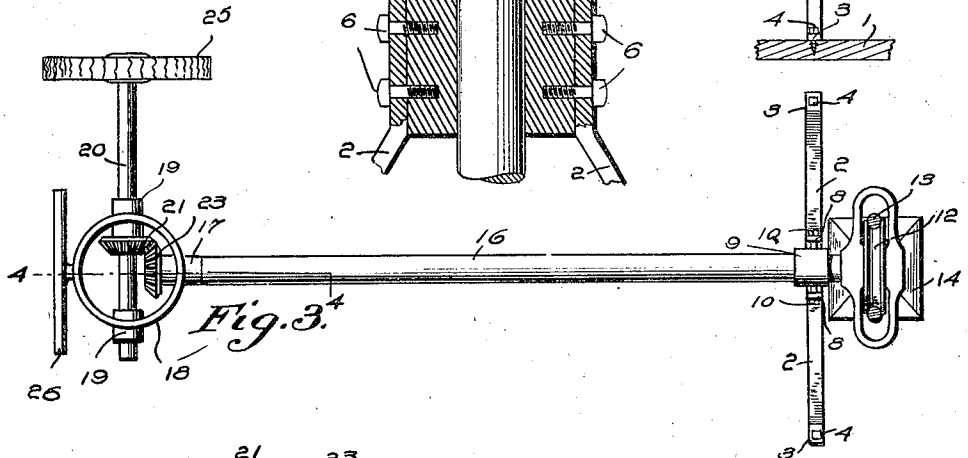
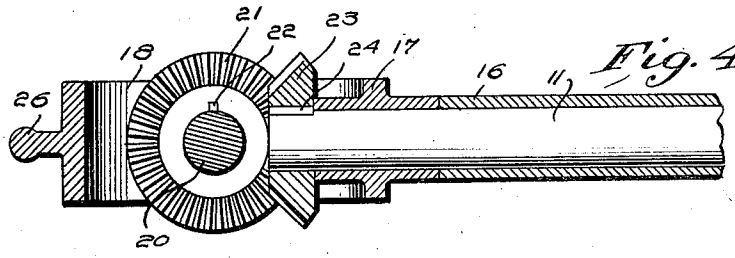


Fig. 4.



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BUFFING MACHINE.

1,418,863. Specification of Letters Patent. **Patented June 6, 1922.**

Application filed March 3, 1921. Serial No. 449,477.

To all whom it may concern:

Be it known that I, HAROLD G. BALLOU, a citizen of the United States, residing at Los Angeles, in the county of Los Angeles and State of California, have invented certain new and useful Improvements in Buffing Machines, of which the following is a specification.

This invention relates to buffing machines, and it comprises a standard or support, a yoke mounted in said support and capable of rotation, a drive shaft pivotally mounted in said yoke whereby the shaft may be adjusted in a horizontal plane, or a vertical plane, a stub shaft arranged adjacent one end of said drive shaft and substantially at right angles thereto, a bevel gear mounted on the end of the drive shaft, a gear carried by said stub shaft and meshing therewith, said stub shaft being mounted in bearings, a sleeve arranged on said main shaft and connected to said bearings to permit the stub shaft to be moved in a circle around the main shaft, and a buffing wheel mounted on said stub shaft.

In the present invention, I have provided supporting means for buffers which will permit the buffing wheel to be adjusted in three planes. The main drive shaft is supported in a fork or yoke and is pivotally mounted therein to permit it to be adjusted in a vertical plane, and the fork is mounted in a sleeve and freely rotatable to permit adjustment of the shaft in a horizontal plane. The third adjustment is obtained by moving the buffing wheel, which is mounted on a stub shaft, in a circle with the main shaft as a center.

In using a buffer, it is frequently difficult to move the work to bring it into engagement with the surface of the buffing wheel. By means of the construction provided, it is possible to adjust the buffing wheel in any direction to bring it into engagement with any desired part of the work.

In the accompanying drawings, I have shown one embodiment of the invention. In this showing:

Figure 1 is a side elevation,

Figure 2 is a vertical transverse sectional view on line 2—2 of Figure 1,

Figure 3 is a plan view, and,

Figure 4 is a longitudinal sectional view on line 4—4 of Figure 1.

Referring to the drawings, the reference numeral 1 designates the floor or other support to which the buffing machine is secured. As shown, the buffing machine is mounted on a pair of legs 2, the legs being provided with off-set ends 3 for the reception of bolts, or other fastening means to secure the device to the floor. A sleeve 5 is arranged between the legs, adjacent their upper ends and maintained in position by means of bolts or screws 6. A fork 7 is mounted in the sleeve and is free to rotate therein. The upper end of the fork comprises a pair of arms 8 between which is supported a sleeve 9, the sleeve being maintained in position by means of screws 10. The main drive shaft 11 passes through the sleeve and is provided with a pulley 12 through which power is supplied to the shaft. The pulley may be driven by rope or belt 13, connected to any suitable source of power. As shown, a counter-weight 14 is secured to the shaft by a flexible member 15 to counterbalance the shaft.

The shaft is arranged within a sleeve 16 which terminates at a point slightly within the forward end of the shaft (see Figure 4). A sleeve 17 is arranged around the shaft in front of the sleeve 16, and this sleeve carries an annular member 18 having bearings 19 formed therein. A stub shaft 20 is mounted in bearings 19, substantially at right angles to the main shaft. The stub shaft is provided with a bevel gear 21 keyed thereto, as at 22, and adapted to mesh with a bevel gear arranged on the end of the main shaft. The gear 23 is keyed to the main shaft, as at 24 to revolve therewith. A buffing wheel 25 is mounted on the stub shaft, as shown. Any other suitable implement may be mounted on the shaft in place of the buffing wheel.

A handle 26 is secured to the annular member 18 to permit adjustment of the stub shaft.

In operation, the device is adjusted in a vertical plane by swinging the main shaft on its pivots 10, as illustrated in dotted lines in Figure 1 of the drawings. Lateral adjustment may be obtained by revolving the lower end 7 of the fork in the sleeve 5. The third adjustment is obtained by revolving the stub shaft, as indicated in dotted lines in Figure 1 of the drawings, about the main shaft as a center. The gears 21 and 23 are so arranged that they are always in mesh, regardless of the position of the shaft 20. Thus, when the shaft is arranged in the dotted line position shown in Figure 1 of

the drawings, power is supplied to the stub shaft from the main shaft through the bevel gears 21 and 23 in the same manner as when the parts are in the same horizontal plane, as shown in Figure 3 of the drawings. The construction provides a universal mounting for a buffer or other implement to permit adjustment in three planes. The handle 26 is utilized by the operator for the purpose of obtaining adjustments, and the buffing wheel is merely swung to the desired position by applying sufficient force to the handle.

It is to be understood that the form of my invention herewith shown and described is to be taken as a preferred example of the same, and that various changes in the shape, size, and arrangement of parts may be resorted to without departing from the spirit of the invention or the scope of the subjoined claims.

Having thus described my invention, I claim:

1. A support for power operated tools, comprising a standard, a sleeve mounted in said standard, a forked member rotatably mounted therein, a sleeve pivotally mounted in said forked member, a main drive shaft arranged in said sleeve, a pulley arranged on one end of said drive shaft, a counter-weight arranged on one end of said drive shaft, said pivotally mounted sleeve terminating at a point within the other end of said shaft, a second sleeve surrounding said main shaft, bearings carried by said sleeve, a stub shaft arranged in said bearings, bevel gears arranged on said stub shaft and said main shaft and meshing with each other, and an implement mounted on said stub shaft.

2. A support for power operated tools comprising a standard, a sleeve mounted in said standard, a forked member rotatably mounted therein, a sleeve pivotally mounted in said forked member, a main drive shaft mounted in said sleeve, a pulley arranged on one end of said drive shaft, a counter weight secured to said shaft adjacent said pulley, said pivotally mounted sleeve terminating at a point within the other end of said shaft, a second sleeve surrounding said shaft, a member carried by said sleeve, bearings mounted in said member substantially at right angles to said sleeve, a stub shaft arranged in said bearings, bevel gears arranged on said stub shaft and said main shaft and meshing with each other, an implement mounted on said stub shaft, and a handle arranged on said member at a point substantially opposite said sleeve.

In testimony whereof I affix my signature in presence of two witnesses.

HAROLD G. BALLOU.

Witnesses:

JAMES GEDDES,

HAROLD G. MOREHOUSE.