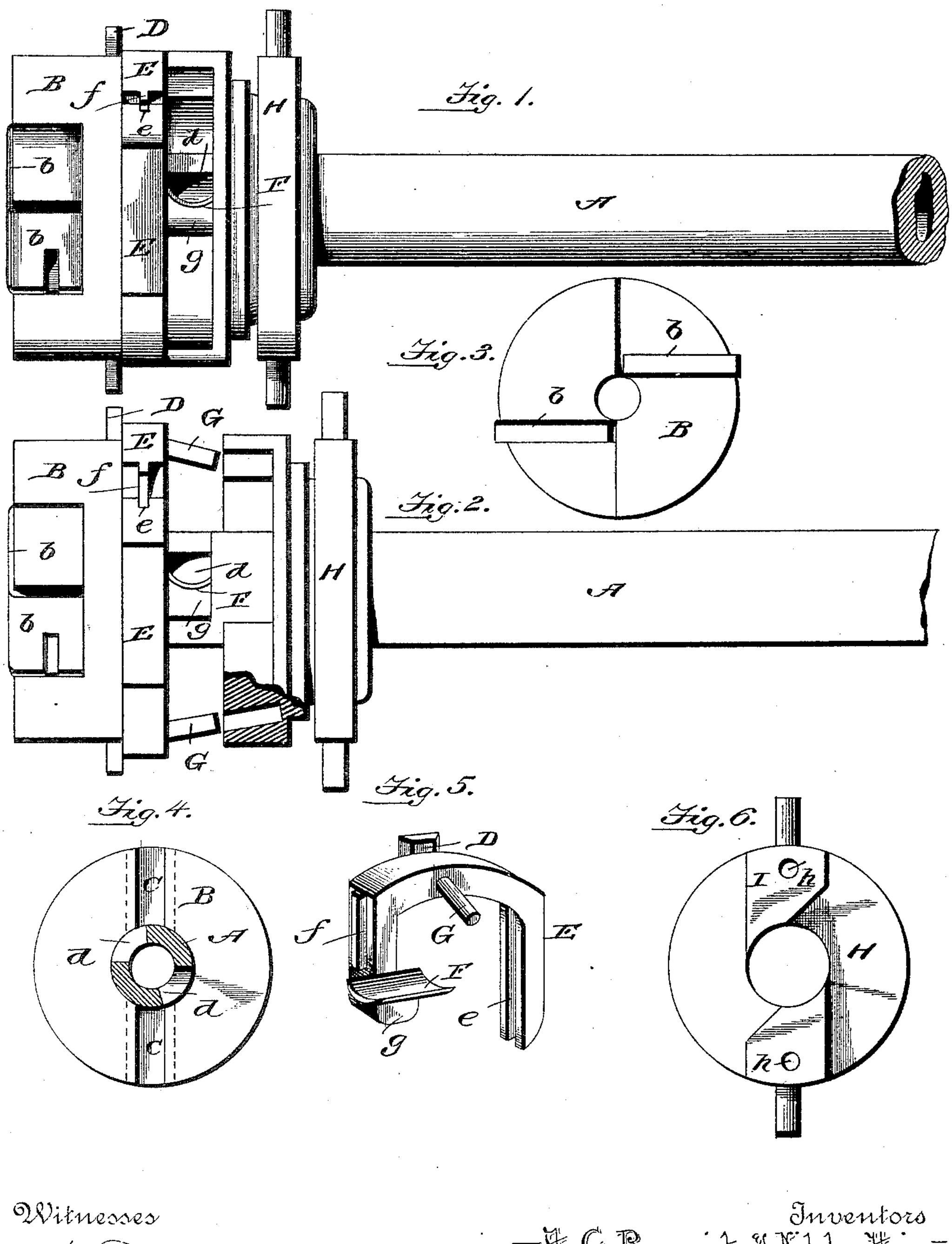
(No Model.)

A. G. BAUMEISTER & N. HEINZ.

TURNING MACHINE.

No. 445,032. Patented Jan. 20, 1891.



Witnesses

[signature]

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UNITED STATES PATENT OFFICE.

ALBERT G. BAUMEISTER AND NICHOLAS HEINZ, OF SANDUSKY, OHIO.

TURNING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 445,032, dated January 20, 1891.

Application filed April 10, 1889. Renewed December 23, 1890. Serial No. 375,578. (No model.)

To all whom it may concern:

Be it known that we, ALBERT G. BAUMEISTER and NICHOLAS HEINZ, citizens of the United States, residing at Sandusky, in the county of Erie and State of Ohio, have invented certain new and useful Improvements in Turning-Machines; and we do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to an improvement in cutter-heads for lathes for turning handle-sticks for brooms, shovels, pitchforks, and the like, and the novelty will be fully understood from the following description and claims, taken in connection with the annexed drawings, in which—

Figure 1 is a side elevation of our improved device removed from the lathe with the parts in an operative position. Fig. 2 is a similar view showing the slide plate or ring separated from the expansible collar. Fig. 3 is a front view of the rougher-wheel. Fig. 4 is a transverse sectional view of the tubular shaft, taken just in rear of the rougher wheel or plate. Fig. 5 is a perspective view of one section of the expansion-collar, showing one of the cutting-blades attached; and Fig. 6 is a front view of the slide-plate with the clutch removed from the tubular shaft.

Referring by letter to the said drawings, A indicates a tubular shaft, which is adapted to be placed in a handle-turning lathe and given a rotary motion by such means as are usually employed in this class of devices.

B indicates the rougher-wheel. This wheel is provided with a central annular aperture and is fixed to the outer end of the tubular shaft A. This wheel or plate B is provided with seats arranged at a tangent to the aperture therein for the reception of the rougher blades or cutters *b*. The rear side of this rougher wheel or plate is provided at diametrically-opposite points with grooves C, which are dovetailed to receive correspondingly-shaped lugs D on the respective sections of the expansion-collar.

The tubular shaft A is provided in rear of the rougher wheel or plate with lateral openings *d*, which are designed to receive the finishing knives or blades carried by the expansion-collar, as will be hereinafter more fully set forth.

E indicates one section of the expansion-collar, there being two employed, and each of a similar construction. These sections (better shown in Fig. 5 of the drawings) have one branch provided on its inner side with a groove *e* and its opposite branch provided on its outer side with a tongue *f*, so that the tongue in one section may enter the groove of the opposite section, and thereby guide the sections in their inward and outward movements. One of the branches of each section is also provided with a knife or cutter seat *g*, upon which is placed a cutter-blade F. It will thus be seen that these cutter-blades, which extend inwardly from the branches of the collar-sections, enter the grooves or lateral apertures in the tubular shaft, and by means of the dovetailed lugs D are fixed in an adjustable manner and turn with the wheel or plate B. These collar-sections are furthermore provided on their opposite sides with lugs or studs G, which extend rearwardly and incline, as shown.

H indicates a plate or sleeve which is arranged loosely upon the tubular shaft in rear of the expansion-collar and carries a clutch I or other suitable means whereby it may be moved longitudinally upon the said shaft. This sleeve, which is designed to slide upon the shaft, is provided upon its face adjacent to the expansion-collar with inclined apertures *h* to receive the inclined studs G on the respective sections of the collar. By this construction it will be seen that the finishing-knives F may be adjusted laterally, and thereby rendered capable of turning handles of various sizes, as it is simply necessary to manipulate the clutch and move the sliding sleeve H to or from the cutter-head. When the sleeve is moved or slid upon the hollow shaft in the direction of the said head with the studs G in the apertures *h*, the sections of the collar carrying the finishing-blades F will be drawn inwardly to operate upon the stock or handle, while by moving the sleeve in the opposite direction the said cutters may be drawn outwardly to the desired adjustment.

Having described our invention, what we claim is—

1. The combination of the tubular shaft

having lateral apertures, the rougher-head secured to the end of said shaft and provided with diametrical grooves on its rear side, an expansion-collar having lugs engaging said grooves, provided with inclined pins on its rear side, and carrying cutters entering the lateral apertures in the tubular shaft, and a sliding sleeve mounted on the shaft and provided with inclined sockets engaging the inclined pins on the expansion-collar, as set forth.

2. The expansion-collar composed of two sections, each having two branches, one of said branches having a groove *e* in its inner side, and the other having a lug *f* on its outer side, the latter branch having a cutter-seat *g*, carrying a cutter, as set forth.

In testimony whereof we affix our signatures in presence of two witnesses.

ALBERT G. BAUMEISTER.
NICHOLAS HEINZ.

Witnesses:
JACOB AMBACHER,
FRANK J. BAUMEISTER.