

(No Model.)

J. ROBERTS.

CUTTER HEAD HOOD FOR PLANERS OR MATCHERS.

No. 495,912.

Patented Apr. 18, 1893.

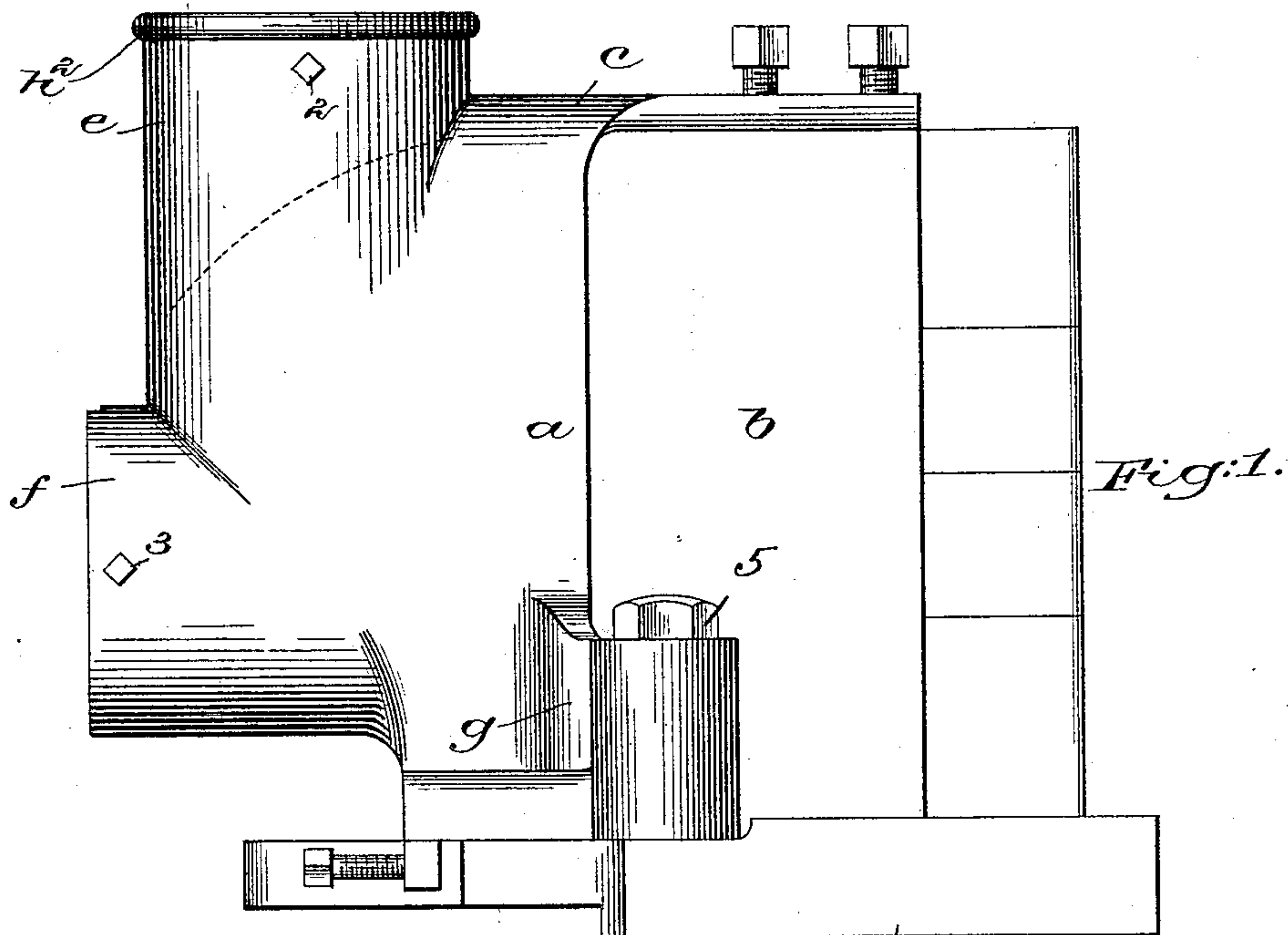


Fig. 2.

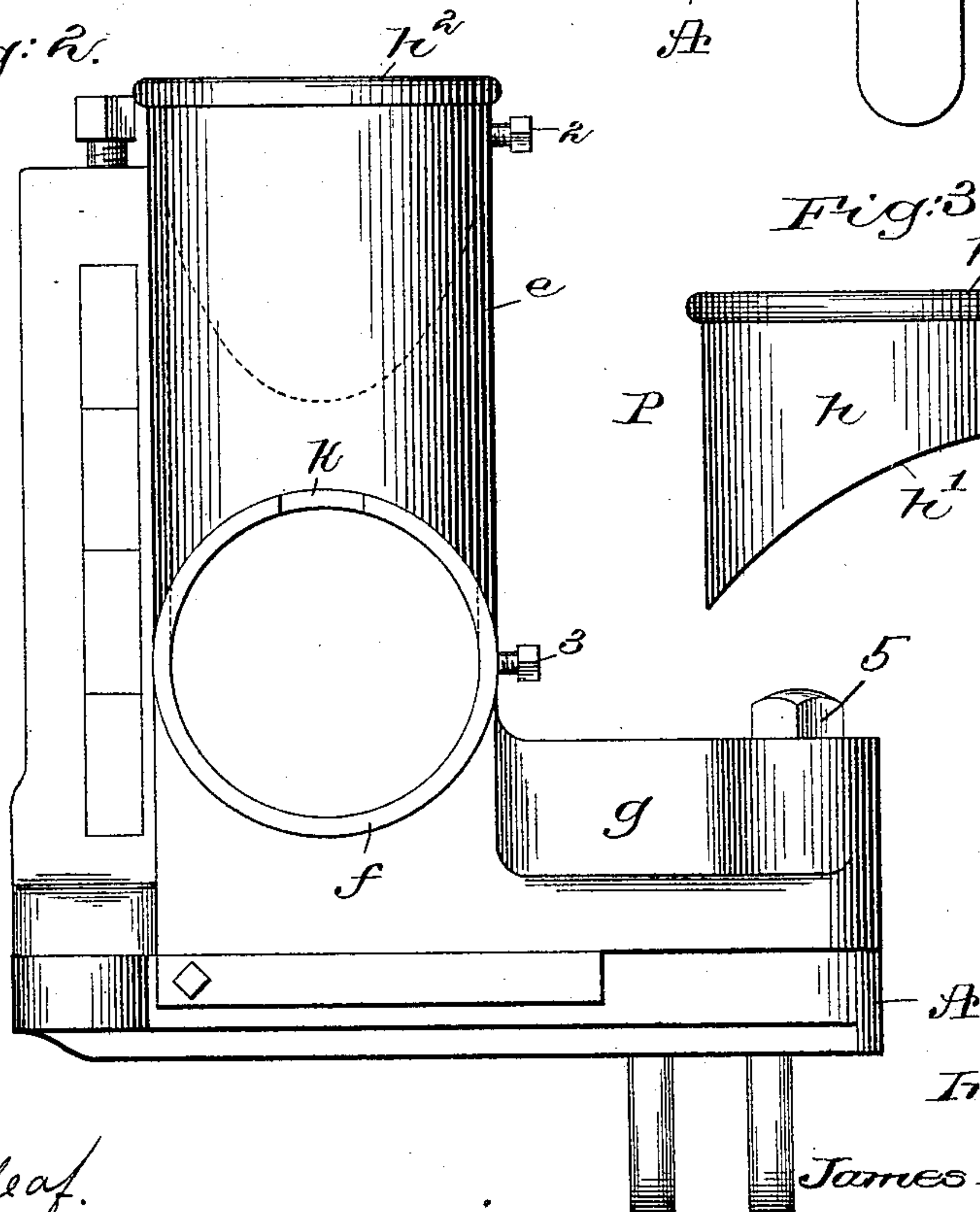
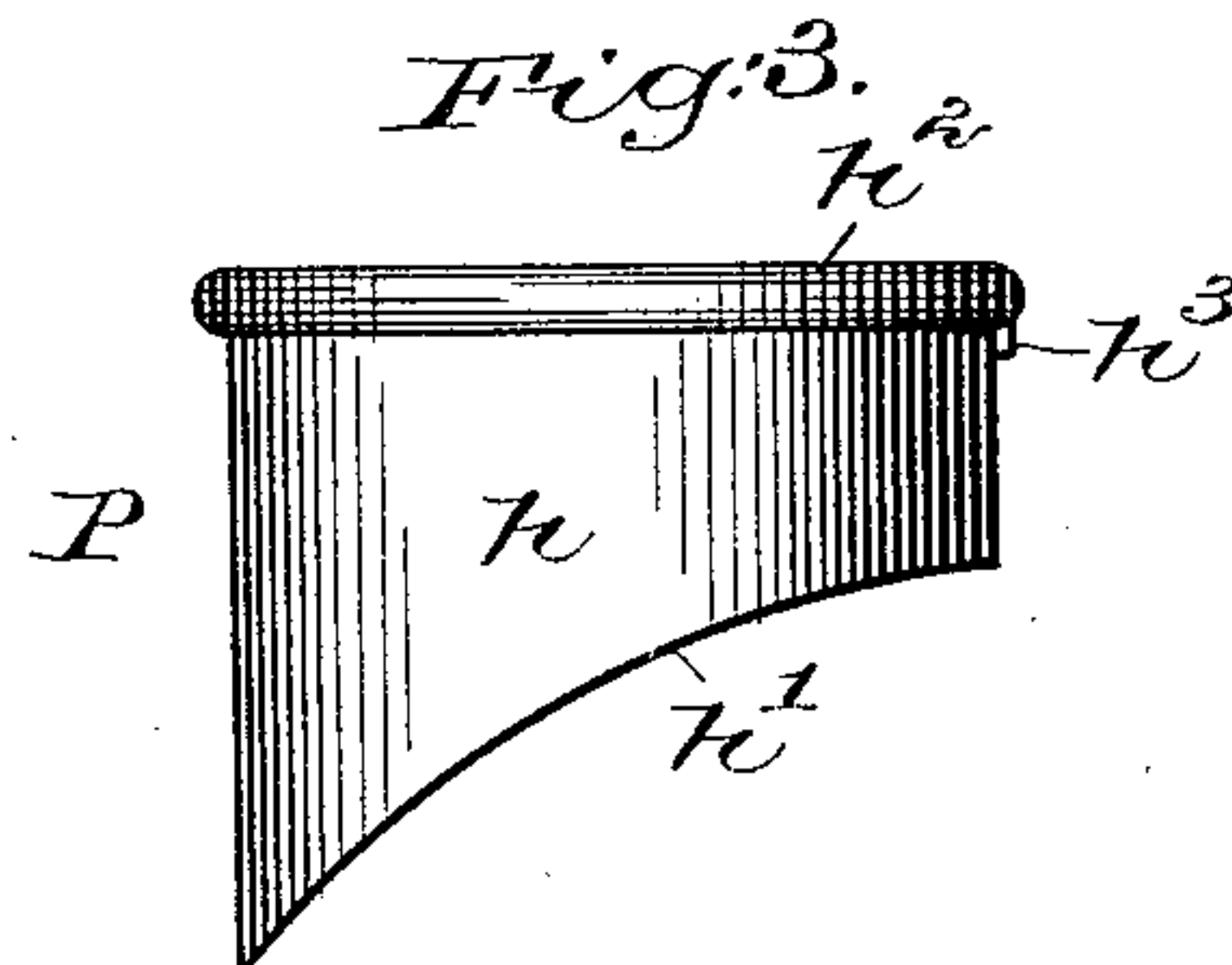


Fig. 3.



Witnesses.

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UNITED STATES PATENT OFFICE.

JAMES ROBERTS, OF BOSTON, MASSACHUSETTS, ASSIGNOR TO THE S. A. WOODS MACHINE COMPANY, OF SAME PLACE.

CUTTER-HEAD HOOD FOR PLANERS OR MATCHERS.

SPECIFICATION forming part of Letters Patent No. 495,912, dated April 18, 1893.

Application filed August 27, 1892. Serial No. 444,255. (No model.)

To all whom it may concern:

Be it known that I, JAMES ROBERTS, of Boston, county of Suffolk, State of Massachusetts, have invented an Improvement in Cutter-Head Hoods for Planers or Matchers, of which the following description, in connection with the accompanying drawings, is a specification, like letters and figures on the drawings representing like parts.

This invention has for its object the production of a hood for planing or matching machine cutter-heads, wherein either a side or a top connection can be readily made with the chip conduits; or both the side or top connections, in one hood may be utilized if desired, by simple and effective means. It is sometimes desirable to convey the chips away from the cutter head at the side, and at other times to convey them upwardly from the top of the cutter, but as these hoods are now made and sold with machines with but one outlet, the user of the machine is obliged to use that outlet notwithstanding it is not in the desired position, or else make a new hood.

In accordance with my invention I provide the hood with side and top openings, by means of which the hood may be connected with the chip conduit to discharge the chips from the top or side of the cutter, as may be most convenient, and I have provided a plug to close the disconnected opening. The plug is so shaped that the formation of a pocket wherein the chips could collect is prevented, the inner end of the plug forming substantially a continuation of the inner wall of the hood when placed in either opening.

Figure 1 in side elevation shows a cutter-head hood embodying my invention. Fig. 2 is a left hand end elevation thereof, and Fig. 3 is a detached view of the plug.

As shown in the drawings the hood is composed of side walls *a*, *b*, connected at the top by a cover portion *c*, and at one end by the hollow projections *e* and *f*, said projections being herein shown as cylindrical and intersecting each other, the walls *a*, *b*, extending rearwardly therefrom to partially surround the cutter-head. The hollow projections *e*, *f*, communicate directly with the interior of the hood, as shown, and form respectively top and side openings for the discharge of the chips

from the cutter-head, not shown, the usual chip conduit being connected with either of said discharge openings by any suitable coupling, in this instance shown as set screws 2, 3, extended through the walls of the projections to clamp the conduit. A supporting foot *g* is extended laterally from the bottom of the hood, having a suitable bearing therein through which is extended a stud, not shown, secured to the base plate *A*, the hood being kept in place by a set nut 5 on the end of the stud. The base plate is rigidly attached to the bed of the machine in the usual manner, the hood being pivotally connected with the base plate, as described, in order that the former may be swung to one side and away from the cutter-head when desired.

It is to be understood that a cap of well known construction will be used in connection with the hood, to surround the uncovered portion of the cutter, the cap not being shown herein, as it forms no part of my invention.

Whichever one of the discharge openings is used it is necessary to provide means for closing the other opening, for, as is well known, the usual practice is to withdraw the chips from the hood by suction. For this purpose I have provided a plug for so closing the opening, the plug *P*, as shown in Fig. 3, having a truncated cylindrical body *h*, its closed inner end *h'* being substantially scooped-shaped for a purpose to be described. As shown in dotted lines, Figs. 1 and 2, the plug is inserted in the discharge opening *e*, with its scoop-shaped concaved end down and turned rearwardly toward the cutter-head, the opening *f* then forming the discharge, from the side of the cutter-head. The inner end of the plug thus forms substantially a continuation of the cover portion of the hood, gradually curving downward to the top of the opening *f*, so that the flying chips are deflected as they come from the cutter-head, directly into the mouth of the said opening. If the discharge is to be upward the plug will be placed in the opening *f*, with its concaved faced turned upwardly and toward the cutter-head, the chips in this instance being deflected by the plug, as described, and directed upwardly toward the mouth of the opening *e*. By thus closing the cylindrical opening at its inner end, and

forming as it were, a continuation of the inner wall of the hood, all pocketing of the chips is prevented, for there is no recess left wherein they can lodge and pack. The plug
5 is quickly applied, and remains in position without fastening devices. A flange h^2 on the outer end of the plug abuts against the end of the discharge opening and prevents said plug from being pushed too far into the hood.

10 If it is desired to enlarge the discharge capacity of the hood the plug is dispensed with entirely, each opening e, f being connected to the same chip conduit or to separate ones.

In order to position the inner end of the plug
15 properly each projection is provided with a notch k , only one such notch being herein shown, in which a lug h^3 on the plug enters.

This invention is not restricted to the exact construction or arrangement of parts as herein shown, the gist of my invention residing
20 in a cutter-head hood provided with side and top discharge openings, and a removable plug adapted to enter and close one of said openings.

25 Having described my invention, what I claim, and desire to secure by Letters Patent, is—

1. A hood for cutter-heads, having side

walls and a connecting cover portion, and hollow projections at one end thereof, said projections forming top and side discharge openings communicating with the interior of the hood, combined with a removable plug adapted to enter and close one of said openings, substantially as described. 30

2. A cutter-head hood having top and side discharge openings, combined with a removable plug having a scoop-shaped concaved inner end and adapted to close one of said openings, the end of said plug when in place forming substantially a continuation of the inner surface of the hood, substantially as described. 35

3. A cutter-head hood having top and side discharge openings, combined with a removable scoop-shaped plug having a flange at one end, and adapted to enter and close one of said openings, and means for positioning said plug, substantially as described. 40

In testimony whereof I have signed my name to this specification in the presence of
two subscribing witnesses. 50

JAMES ROBERTS.

Witnesses:

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EMMA J. BENNETT.