G. A. LIPPINCOTT.

SANDER HEAD.

APPLICATION FILED MAR. 10, 1909.

923,865. Patented June 8, 1909.

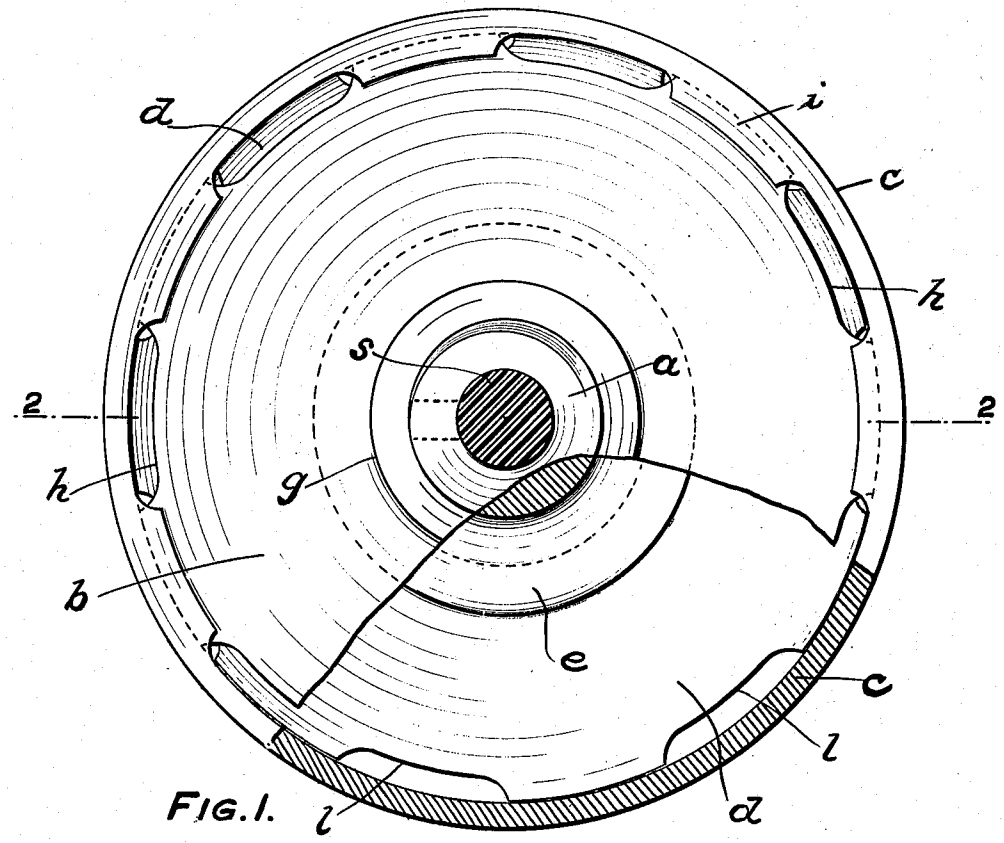


FIG. 1.

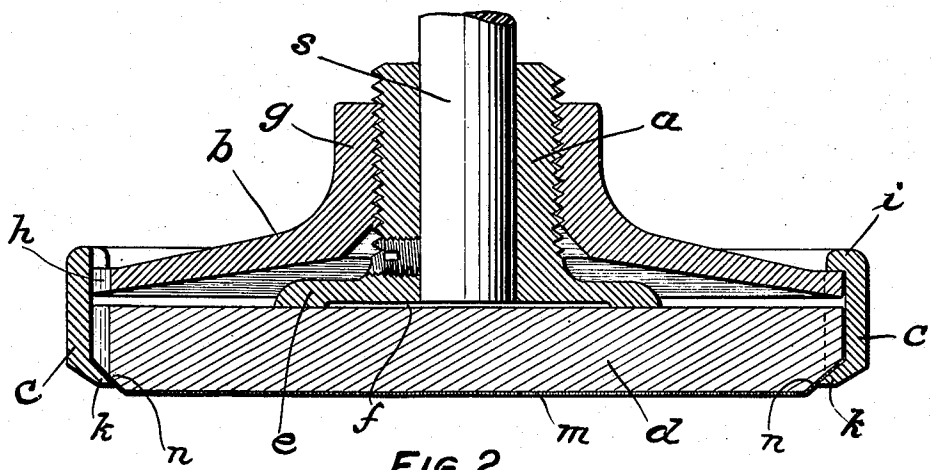


FIG. 2.

WITNESSES:

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SANDER-HEAD.

No. 923,865. Specification of Letters Patent. Patented June 8, 1909.

Application filed March 10, 1909. Serial No. 482,534.

To all whom it may concern:

Be it known that I, GEORGE A. LIPPINCOTT, a citizen of the United States, residing at Mount Holly, county of Burlington, and State of New Jersey, have invented a new and useful Improvement in Sander-Heads, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, which form a part of this specification.

The object of my invention is to produce an improved head for holding sand-paper adapted to be applied to a vertically disposed rotatable shaft carried on the end of a hinged and jointed arm and thereby movable horizontally by the operator over doors, desk-tops and various articles of wood for the purpose of polishing or finishing the same.

The construction and mode of application of the preferred embodiment of my improved sander-head will be clear from the following description in connection with the accompanying drawings, in which—

Figure 1 is a plan view of the sander-head partly broken away, and Fig. 2 a transverse section on the line 2—2 of Fig. 1.

The sander-head comprises the thimble *a* adapted to be set-screwed to the shaft *s*, the flanged disk *b*, the ring *c*, and the wooden block *d*.

The thimble *a* at its lower end is provided with an annular flange *e* and its lower face is provided with a wide, shallow, centrally-disposed recess *f*, thereby providing an annular bearing surface between the thimble *a* and the block *d* substantially between the center and periphery of the latter.

The disk *b* is provided with a hub *g* interiorly threaded to engage exterior threads on the thimble *a*. The body of the disk is inclined slightly downwardly and outwardly to a horizontal plane and has recesses *h* cut in, and uniformly disposed around, its periphery.

The ring *c* is provided, at its upper end, with a flange *i*, which is also cut away or recessed uniformly around its periphery, forming flanged sections corresponding in number and approximately in length to the recesses *h* in the disk *b*. At its lower end the ring *c* is provided with an inwardly extending flange *k* beveled downwardly and inwardly on its inner face. The block *d* is provided with recesses *l* cut in, and uniformly disposed around its periphery, and corresponding to the flanges *i* of the ring *c* to permit the block to be slipped within the ring.

m is a sheet of abrasive material such as sand-paper placed against the bottom of the block *d*, its edges extending between the beveled lower edge *n* of the block *d* and the beveled flange *k* of the ring *c*.

Assuming the thimble *a* to be set-screwed to the shaft *s*, the ring *c* carrying the block *d* and abrading sheet *m* is slipped upwardly, the flanges *i* of the ring *c* passing through the recesses *h*, until the block *d* abuts against the flange *e* of the thimble *a*. The ring *c* is then turned slightly until the flanges *i* thereof overhang parts of the disk *b* not cut away. The operator then grasps the disk *b* and ring *c*, holding both members firmly with each hand to prevent any relative turning movement between them and then turns the disk and ring on the thimble *a* until the block *d*, with the sand-paper *m*, is tightly confined between the flange *e* of the thimble *a* and the beveled flange *k* of the ring *c*. The direction of the screw pitch should be such that the disk *b* and ring *c* must be turned as described in a direction opposite to that of the rotation of the shaft, so that, in the rotation of the shaft during the operation of the machine, the tendency will be to maintain or increase the binding pressure with which the block and sand-paper are confined. The pitch of the screw should be fairly large, as otherwise the block is likely to be held so firmly that its release may be almost or quite impossible.

Having now fully described my invention, what I claim and desire to protect by Letters Patent is:—

1. A sander-head comprising, in combination, a thimble adapted to be secured to a shaft, a disk threaded on the thimble, a ring engaging the disk, and a block adapted to be confined between the ring and thimble.

2. A sander-head comprising, in combination, a thimble adapted to be secured to a shaft, a disk threaded on the thimble and recessed in its periphery, a ring surrounding the disk, a cut-away flange on the ring adapted when the ring is turned to more or less overhang the unrecessed peripheral part of the disk, and a block adapted to be confined between the ring and thimble.

3. A sander-head comprising, in combination, a thimble adapted to be secured to a shaft, a disk threaded on the thimble, a ring

engaging the disk and having an inwardly projecting beveled lower flange, and a block adapted to be confined between the thimble and the beveled flange of the ring.

4. A sander-head comprising, in combination, a thimble adapted to be secured to a shaft, an annular flange on the thimble having a shallow concentric recess forming an annular bearing surface on the flange, a disk threaded on the thimble, a ring engaging the disk, and a block adapted to be confined between the ring and the annular bearing face of the flange.

5. A sander-head comprising, in combination, a thimble adapted to be secured on a shaft, a block beneath the thimble having its lower edge beveled, a disk threaded on the thimble and recessed on its periphery, a ring surrounding the disk, an inwardly extending cut-away flange on the upper part of the ring adapted to be passed through said recesses and turned to overhang the non-recessed peripheral part of the disk, and an inwardly extending beveled flange on the lower part of the ring between which and the beveled edge of the block the edge of an abrading sheet is adapted to be confined.

6. A sander-head comprising, in combination, a thimble adapted to be secured to a shaft, an annular flange on the thimble having a shallow concentric recess forming an annular bearing surface on the flange, a disk threaded on the thimble and recessed on its periphery, a ring surrounding the disk, an inwardly-extending cut-away flange on the upper part of the ring adapted to be passed through said recesses and turned to overhang the non-recessed peripheral part of the disk, an inwardly extending beveled flange on the lower part of the ring, and a block having its lower edge beveled correspondingly to the lower flange of the ring and adapted to be confined between the flange of the ring and the flange of the thimble when the ring and disk are turned together on the thimble.

7. A sander-head comprising, in combination, a shaft, a member secured thereto, a block, and two separable members adapted to engage respectively the first member and the block and movable together axially of the shaft on the first member to lock the block in fixed relation to the shaft.

8. A sander-head comprising, in combination, a shaft, a block, a ring adapted to surround the block, a flange on the ring upon which the block is upheld, a disk adapted to be inserted within the ring, means by which the disk supports the ring and the block, and a threaded connection between the disk and shaft by means of which the disk may be moved axially of the shaft and the block tightened against the shaft.

9. A sander-head comprising, in combination, a shaft, a block, a ring adapted to support the block, a disk adapted to support the ring, and a threaded connection between the disk and shaft by means of which the parts may be moved axially of the shaft and the block tightened against the shaft.

In testimony of which invention, I have hereunto set my hand, at Smithville, on this third day of March, 1909.

GEORGE A. LIPPINCOTT.

Witnesses:
BUDD S. GOLDY,
E. GSELL.