(No Model.) 2 Sheets—Sheet 1.

A. CRAMPTON.

STICKER HEAD.

No. 418,366. Patented Dec. 31, 1889.

Fig. 1.

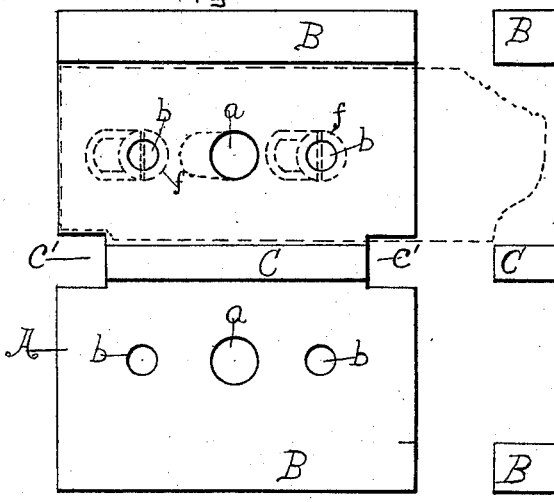


Fig. 2.

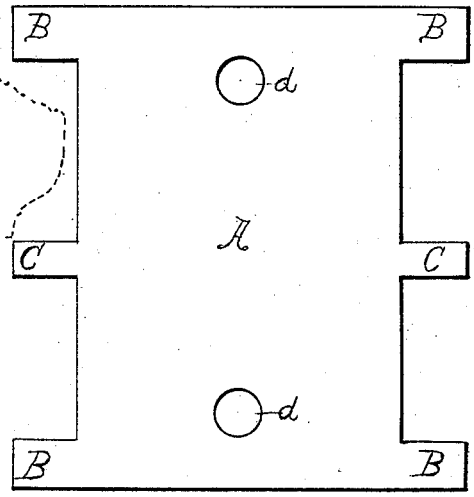


Fig. 3.

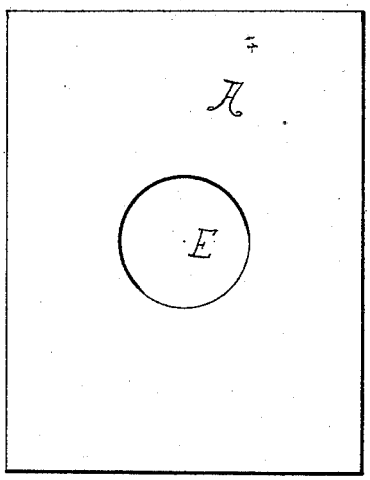


Fig. 4.

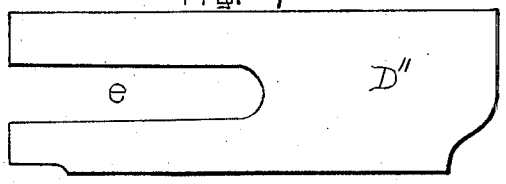


Fig. 5.

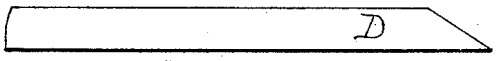


Fig. 6.

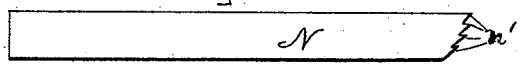
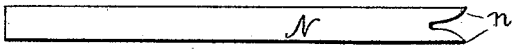


Fig. 7.



WITNESSES:

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W. P. Preister Jr.

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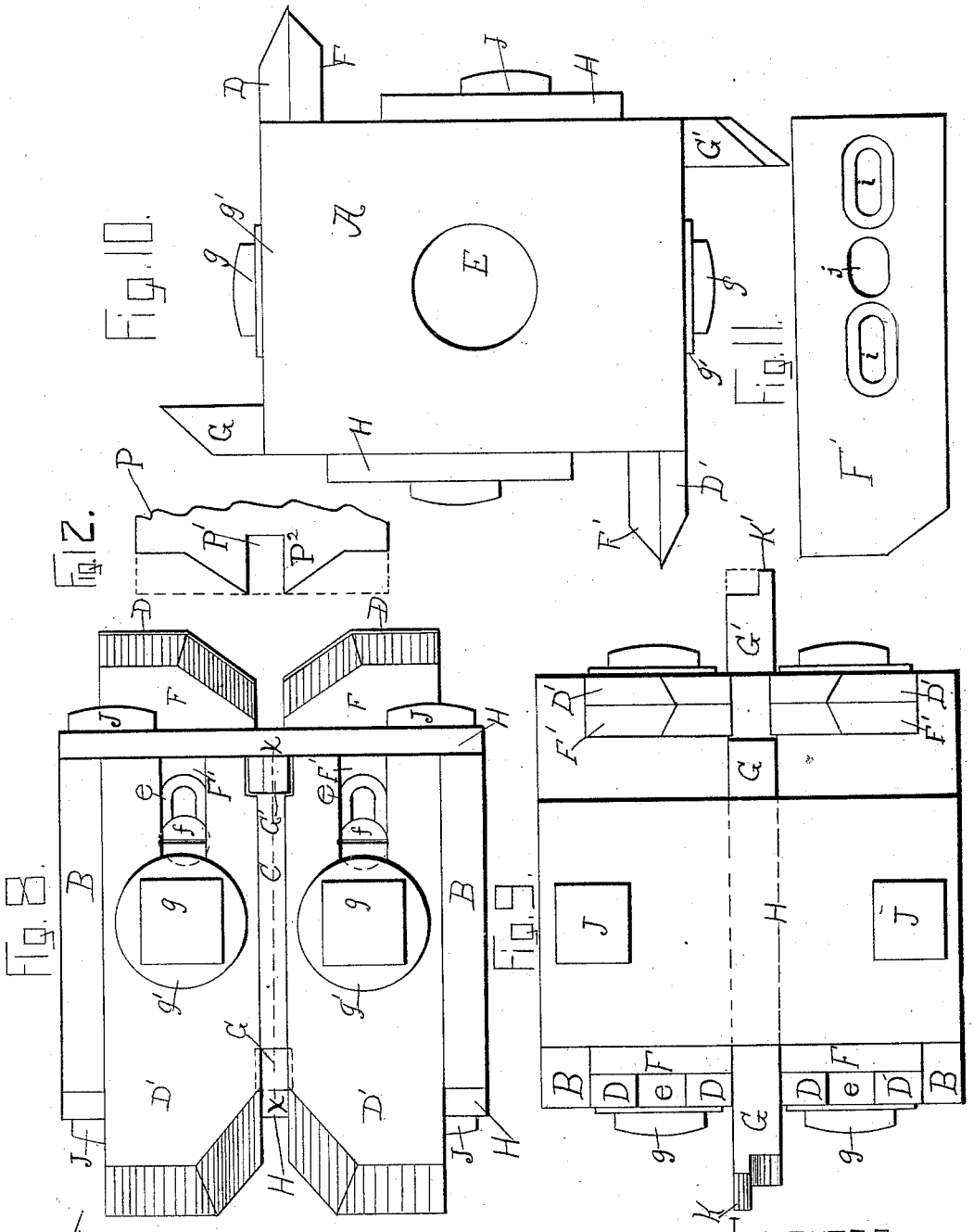
atty.

(No Model.) 2 Sheets—Sheet 2.

A. CRAMPTON.

STICKER HEAD.

No. 418,366. Patented Dec. 31, 1889.



WITNESSES:

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Wm. H. Hollister Jr.

INVENTOR:

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UNITED STATES PATENT OFFICE.

ALBERT CRAMPTON, OF GREEN ISLAND, NEW YORK, ASSIGNOR OF ONE-HALF TO EMERSON BELDEN, OF SAME PLACE.

STICKER-HEAD.

SPECIFICATION forming part of Letters Patent No. 418,366, dated December 31, 1889.

Application filed August 30, 1887. Serial No. 248,275. (No model.)

To all whom it may concern:

Be it known that I, ALBERT CRAMPTON, a resident of Green Island, in the county of Albany and State of New York, have invented certain new and useful Improvements in Sticker-Heads; and I do hereby declare that the following is a full, clear, and exact description of the invention, that will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

Similar letters refer to similar parts in the several figures therein.

My invention relates to improvements in sticker-heads; and it consists of the novel construction and combination of parts hereinafter described, and pointed out in the claims.

The objects of the invention are fully s forth in connection with the following description.

Figure 1 of the drawings is a side elevation of the solid head divested of its cutters and other attachments. Fig. 2 is a similar view of a side contiguous to that shown in Fig. 1. Fig. 3 is a plan view of one end of the head as shown in the first two figures. Fig. 4 is a plan view of an ogee-shaped cutter detached, seen from the side contiguous to the chip-breaker when the parts are attached to the head. Fig. 5 is an edge view of the cutter shown in Fig. 4, seen from the upper side as there shown. Figs. 6 and 7 are side and edge views of a groove-creaser detached. Figs. 8, 9, and 10 are respectively views similar to those shown in Figs. 1, 2, and 3, with the cutters attached to the head. Fig. 11 is a plan view of a chip-breaker detached, seen from the side contiguous to the overlying cutter when the parts are attached to the head. Fig. 12 is an end view of a plank or other timber, showing the groove and molding formed on its facial edge by a sticker-head, a portion of the plank being broken away.

Sticker-heads have heretofore been employed for the purpose of edge-molding, and grooving planks and other articles made of a solid head, having edge flanges and clamps by which the cutters employed in edge-molding were clamped to the head, and chip-breakers were also employed in connection with the cutters; but it was found difficult to adjust the cutters upon the head, and heretofore no means have been employed for adjusting the chip-breakers.

By means of my improved head and attachments I am able to securely adjust the cutters independently of each other upon the head, and also to adjust the chip-breakers independently of each other and the cutters.

A represents my improved head, which is provided with the customary central aperture E, adapted to receive one end of the rotary vertical shaft upon which the head is fixed. The head is also provided upon two of its opposite sides with the edge flanges B and the central flange C, forming two slots between said flanges upon opposite sides, adapted to receive the cutters D and chip-breakers F on one side of the head and the cutters D′ and chip-breakers F′ on the opposite side of the head.

The chip-breakers, provided with slots *i* and *j*, are first secured to the head by screws *f* passing through the slots *i* into threaded apertures *b* in the head, as shown by dotted lines in Fig. 1, in which the arrangement is that required when the head rotates in the opposite direction to that of the hands of a watch. When it is desired to rotate the cutter-head in the opposite direction, as shown in Figs. 8, 9, and 10, the position of the chip-breaker would be reversed, so that the projecting end would project from the left-hand side instead of the right-hand side, as shown by the dotted lines. A cutter D′ is then superimposed upon the chip-breaker in the slot between the flanges B and C, being made to fit therein and secured to the head by means of a screw-bolt *g*, passing through slot *e* in the cutter and slot *j* in the chip-breaker and screwed into the threaded aperture *a*, a washer *g′* being interposed between the head of the bolt and the cutter. It will thus be seen that the degree of projection of the cutters beyond the head can be varied as desired, the degree of variation being limited only by the length

of the slot *e* and the cutter-shank, through which the bolt passes and in which it is adapted to slide from one end to the other. By having the cutter on the same side of the head separated by an intervening fixed flange G and secured as described, they can be adjusted independently of each other and more readily than by the old method, in which both cutters were clamped to an edge flange, as flange B, without an intervening flange. In such construction, where the two cutters were in contact with each other, after one cutter had been adjusted in the proper position it was very difficult to adjust the other cutter without disturbing the adjustment of the cutter previously adjusted.

The chip-breakers F and cutters D are secured to the opposite side of the head in precisely the same manner as the chip-breakers F′ and cutter D′. The head is also provided on two opposite sides with transverse horizontal slots C′, adapted to receive the groovers G and G′, which are securely held therein by means of the binders H, which may be perforated metallic plates secured to the head at each end by screw-bolts J, fitting the threaded aperture *d* in the head.

I have shown the groovers in Fig. 9 provided with cutting projections K and K′ projecting from opposite sides of the groover-heads. When the groovers are so constructed, one of them cuts one side of the groove and the other groover the other side of the groove; but the groover may be provided with a cutting-face extending the full width of the head, as shown by the solid and dotted lines at K′ in Fig. 9. When the heads of both groovers are constructed as last described, it is evident that each groover will cut only half as deep, and one of the groovers may be removed and a serrated head or creaser N, having a bifurcated head composed of the arms *n*, provided with teeth *n′*, substituted therefor.

The object of the creaser is to define the outlines of the groove to be cut by the groover without splitting or cracking and chipping up the wood when the groover is compelled to work across the grain of the wood.

The work done by the cutters and groovers is shown in Fig. 12, in which the shape of the facial edge of the plank or timber P before it is acted upon by the cutters and groovers is shown by dotted lines, and the shape of the facial edge after it is acted upon by the cutter and groover is shown by the solid line P^2, the groover cutting the groove P′.

Different-shaped cutters and chip-breakers as well as groovers may be employed, as shown in cutter D^2 in Fig. 4, adapted to give the facial edge an ogee shape. In the other figures the cutters are shaped to produce a beveled facial edge.

It will be observed by inspection of Fig. 12 that with bevel-shaped cutters the outer or facial edges bounding the groove P′ form an acute angle with the face of the groove-walls. It will be readily seen, therefore, that when the grain of the plank or timber is not parallel with its facial edge and the groover is moving in one direction across the grain it will very readily chip off portions of the angular edges bounding the mouth of the groover when a simple straight-faced cutting-edge is employed upon the head of the groover.

By employing what I have styled a "creaser" N, having a bifurcated head with a series of spurs similar to saw-teeth, I am able to define the groove by light creases or grooves, which entirely prevent the chipping off of the angular edges bounding the mouth of the groove. The arms *n*, being short and projected from a single heavy bar or head, will not yield to vary the width of the grooves, as frequently happens when the grooves are defined by segmental saws.

By having the chip-breakers detachable and adjustable instead of cast integral with the head, they can be cheaply made of better material than the head, and as they wear away in use they can easily and quickly be readjusted to any desired position relatively to the cutters.

By having the groovers or groover and creaser located in independent slots on faces of the head separated from the faces having the cutters, all the cutting-edges are easily accessible for sharpening without removal from the head.

In constructions heretofore in use having the groovers located between the cutters on the same face of the head the cutting-edges were rendered inaccessible for sharpening while attached to the head.

When desired, the head and groovers may be made of two separate similar sections, such as would be formed by cutting the head and groovers in halves along the broken line *x x* in Fig. 8, in which case the sections would be held together by the supporting-shaft passing through the central aperture E.

What I claim as new, and desire to secure by Letters Patent, is—

1. An improved sticker-head consisting of a centrally-perforated metallic block provided with a central and end flanges on two opposite sides, and molding-cutters and chip-breakers fitted in the spaces or slots formed between said flanges and adjustably secured to the block, and a central slot on one of the other sides, with a groover fitted therein and adjustably secured to the block, substantially as described, and for the purposes set forth.

2. The combination, with a sticker-head block, of a chip-breaker adjustably secured to such block and a molding-cutter superimposed upon such chip-breaker and adjustably secured to such block independently of such chip-breaker, substantially as described.

3. The combination, with a sticker-head block provided with molding-cutters on two opposite sides of the block and a groover-

slot on one of the other sides, of one or more groovers adjustably secured to said block in said slot or slots, substantially as described, and for the purposes set forth.

4. The combination, with a sticker-head block provided with molding-cutters on one side and with creaser and groover slots on two of the other sides, of a creaser and groover adjustably secured to said head in said slots, substantially as described, and for the purposes set forth.

5. In a sticker-head, the combination, with the block and molding-cutters, of a bifurcated creaser-bar adjustably secured to such block and provided with the arms n, having teeth n', substantially as described.

In testimony whereof I have hereunto set my hand this 23d day of August, 1887.

ALBERT CRAMPTON.

Witnesses:

GEO. A. MOSHER,

W. H. HOLLISTER, Jr.