(No Model.) 2 Sheets—Sheet 1.

T. D. HAMMOND.

MACHINE FOR FORMING CORNERS OF COFFINS OR CASKETS.

No. 392,118. Patented Oct. 30, 1888.

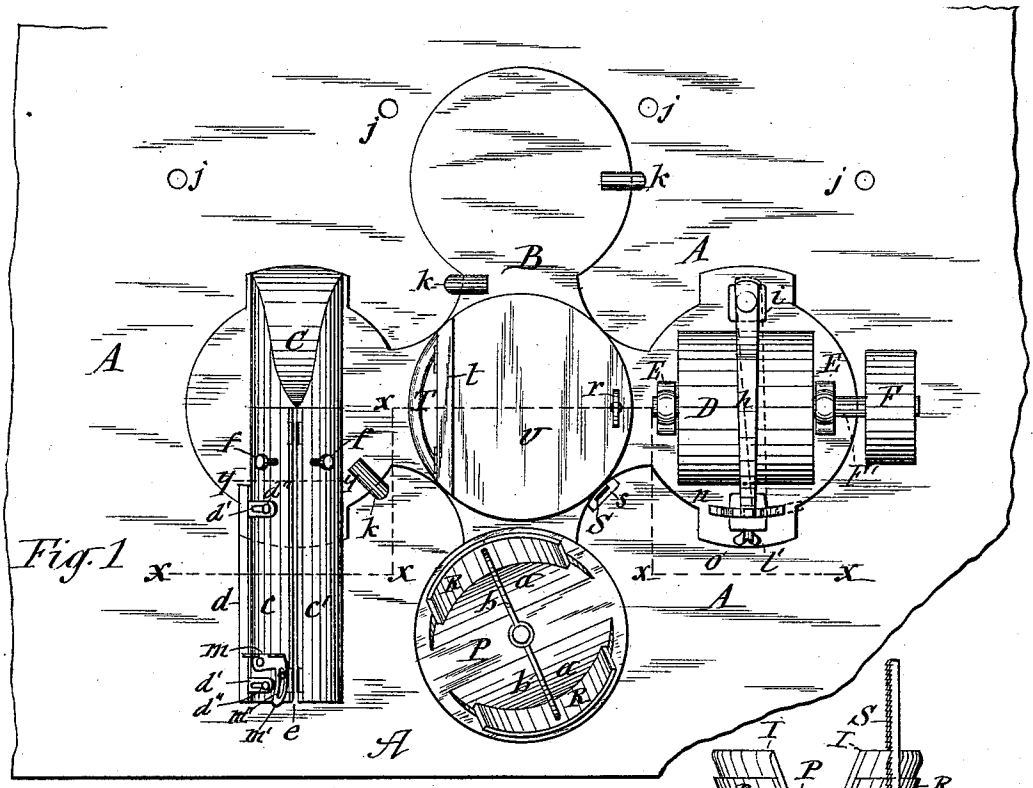


Fig. 1

Fig. 8

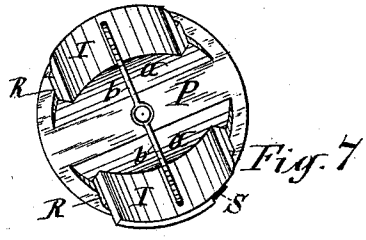


Fig. 7

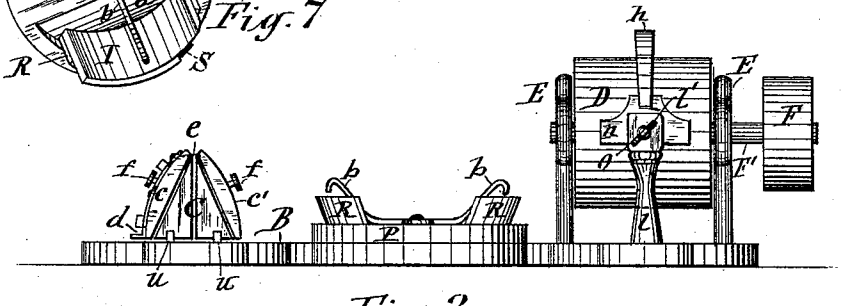


Fig. 2

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(No Model.) 2 Sheets—Sheet 2.

T. D. HAMMOND.

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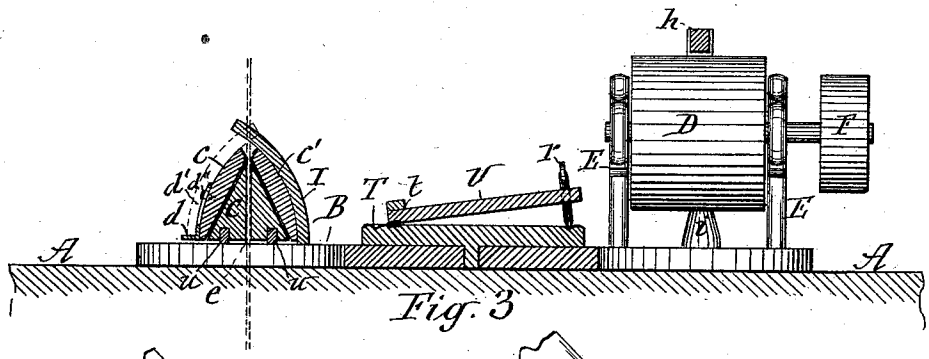


Fig. 3

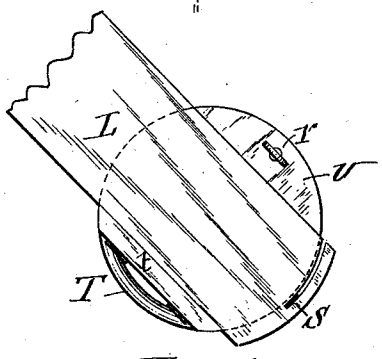


Fig. 4

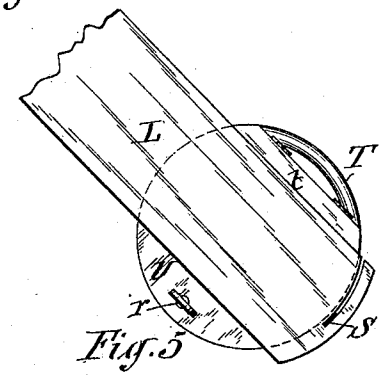


Fig. 5

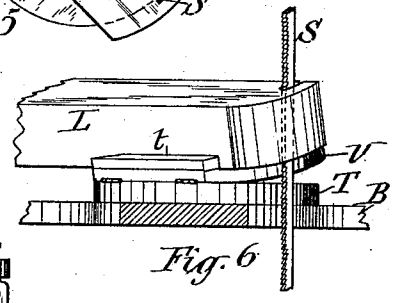


Fig. 6

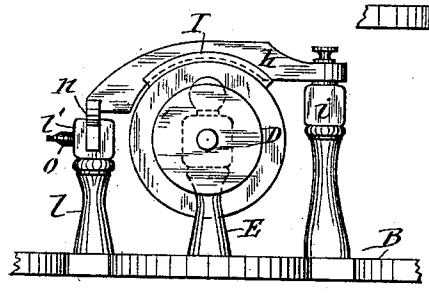


Fig. 10



Fig. 9

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UNITED STATES PATENT OFFICE.

THOMAS D. HAMMOND, OF SYRACUSE, NEW YORK, ASSIGNOR OF ONE-HALF TO ELLEN J. KELLER, OF SAME PLACE.

MACHINE FOR FORMING CORNERS OF COFFINS OR CASKETS.

SPECIFICATION forming part of Letters Patent No. 392,118, dated October 30, 1888.

Application filed January 23, 1888. Serial No. 261,602. (No model.)

To all whom it may concern:

Be it known that I, THOMAS D. HAMMOND, of Syracuse, in the county of Onondaga, in the State of New York, have invented new and useful Improvements in Machines for Forming Corners for Coffins or Caskets, of which the following, taken in connection with the accompanying drawings, is a full, clear, and exact description.

This invention relates to the manufacture of the base-moldings of the rounded corners of burial-caskets. Such moldings are difficult to make, owing to the inclination of the side and end walls of the casket and corresponding inclination of the corners requiring a peculiar shape of said corner-moldings.

The object of this invention is to manufacture the aforesaid corner-moldings in an expeditious, accurate, and perfect manner; and to that end my invention consists in the novel construction and combination of devices for holding the work in its various requisite positions in relation to the saw, as hereinafter fully described, and specifically set forth in the claims.

In the annexed drawings, Figure 1 is a top plan view of my invention. Fig. 2 is a front elevation of the same. Fig. 3 is a vertical transverse section on line *x x*, Fig. 1. Figs. 4 and 5 are top plan views of the device for holding the block from which the moldings are to be cut. Fig. 6 is an elevation of the same. Fig. 7 is a top plan view of the device for holding the molding during the operation of trimming the top edges thereof. Fig. 8 is an elevation of the same. Fig. 9 is a transverse section on line *y y*, Fig. 1, and Fig. 10 is an end elevation of the abrading-cylinder, by means of which the side surfaces are finished.

Similar letters of reference indicate corresponding parts.

A denotes the work-table, and S the band-saw working through a slot, *e*, in said table. Upon the table is movably mounted the bed-plate B, which carries the devices by which the work is held to the saw, and in order to allow said devices to be brought successively in their requisite operative positions and properly sustain them in said positions I provide the table with a series of holes, *j j*, for the reception of the clamps K K, by which to fasten the bed-plate B to the table A, as shown in Fig. 1 of the drawings.

To one portion—preferably the central portion—of the bed-plate B and axially parallel with the saw S, I pivot a circular plate, T, which is rotatable in a plane at right angles to the saw. On one side of the top of this plate I hinge another plate at one of its edges, which plate constitutes the holder U of the block to be operated on. This holder is supported adjustably in an inclined position by means of a set-screw, *r*, passing vertically through the holder U, near the free edge thereof, and resting upon the subjacent plate T, as shown in Fig. 3 of the drawings. To the top of the hinged side of the holder is secured a gage, *t*, against which to rest the work to be operated on.

To another portion of the bed-plate B, I pivot axially parallel with the saw S another plate, P, which is likewise rotatable in a plane at right angles to the saw. The top of this plate is formed with segmental bearings *a a* at opposite sides of the center of the plate and inclined from the center outward. The segmental edges of the said bearings are concentric with the axis of the plate and lean outward and have secured to them segmental plates or rests R R, against which to place the work to be operated on, as hereinafter described, the work being held against the rests by clamps or spring-arms *b b*, as shown in Fig. 7 of the drawings.

Another portion of the bed-plate B is provided on its top with horizontal guides *u u*, on which is mounted a slide, C, having in its under side longitudinal grooves which the said guides enter, as illustrated in Figs. 2 and 3 of the drawings. Said slide is provided with a central longitudinal vertical slot, *e*, for the passage of the saw S, and the longitudinal sides of the slide are inclined. To the top of the slide at opposite sides of the slot *e* are hinged cheek-pieces *c c'*, the exteriors of which are convexed transversely. By means of set-screws *f f*, passing through said cheek-pieces and resting on the sides of the slide C, the cheek-pieces are supported adjustably in in-

clined positions. The cheek-piece *c* on one side of the slide has adjustably connected to it a gage, *d*, on which to rest the work to be operated on, said gage being provided with vertical arms *d' d'*, provided with longitudinal slots, through which the attaching-screws *d'' d''* pass. Near the front end of the cheek-piece *c* is another gage or rest, *m*, pivoted to the lower portion of said cheek-piece and extending toward the top thereof, and provided at its upper end with a forward extension, *m'*, which is provided with a segmental slot, *m''*, for the reception of the screw, by which it is adjustably secured to the cheek-piece.

On still another portion of the bed-plate B are mounted two posts, E E, in which is journaled a shaft, F', and to this shaft between the posts is secured the abrading-cylinder D, faced on its convex side with sand-paper or other suitable abrading material. A pulley, F, is attached to the end of the shaft for the reception of the driving-belt. At one side of the cylinder D is a post, *i*, secured to the bed-plate B, and on the top of this post is pivoted the gage *h*, which lies across the top of the abrading-cylinder, and has secured to its free end a vertical plate, *n*, which enters loosely into a slot in the head *l'* of a post, *l*, secured to the bed-plate B. A set-screw, *o*, is inserted transversely into the head *l'* and engages the plate *n*, and serves to hold the gage *h* adjustable in its position in relation to the line of the cylinder D.

The operation of my invention is as follows: First, I adjust the bed-plate B on the table A, so as to bring the edge of the plate T near the saw S, and place upon the holder U a wooden block, L, which is of approximately the same width and thickness as the length and height of the molding to be formed, said block being placed with the base of one of its longitudinal sides against the rest or gage *t*, and after moving it forward a sufficient distance to bring the end thereof within the range of the saw the plate T is turned on its pivot to cause the saw S to pass transversely through the block and trim the end thereof to a shape corresponding to the outer side of the molding to be formed. After that the block L is successively moved forward each time a distance equal to the kerf of the saw and thickness of the molding to be formed. The inclination of the block *l*, combined with its horizontal rotary motion across the saw S, produces the requisite peculiar winding segmental shape of the molding for one corner of the casket, and by reversing the holder U and presenting the opposite end of the block L to the saw a molding of proper shape for the opposite corner of the casket is produced. I next trim the top edges of the aforesaid moldings by placing the same with their bottom edges in the beveled bearings *a a* of the plate P, and with the convex sides of said moldings against the concave rests R R, in which position they are sustained by the clamps *b b*, the bed-plate B being shifted on the table, so as to bring the edge of the plate P near the saw S, and then by turning the said plate on its pivot the saw trims the top edges of the moldings, as illustrated in Figs. 7 and 8 of the drawings. After this is accomplished I shift the bed-plate B on the table A so as to bring the slide C in a position to stand with its longitudinal slot *e* in range with the saw S. I then place each piece of molding separately endwise, first on the cheek-piece *c'*, with the molding I resting on the bed-plate B, as illustrated in Fig. 3 of the drawings, and in this position I carry the slide C with the molding I toward the saw S until the latter has trimmed the upper end of the molding. I next retract the slide and place the molding I on the cheek-piece *c*, with the trimmed end of the molding resting against the gage *d*, and then by moving the slide with the molding to the saw the second end of the molding is trimmed off. The molding is then in its requisite shape, and only requires smoothing and finishing, which are effected by placing it with its concave side on the cylinder D, as represented in Fig. 10 of the drawings. Said concave side, being askew or winding, requires the molding to be placed obliquely on the cylinder, and, inasmuch as the moldings at opposite corners are askewed reverse, the different corner-moldings require to be placed at different angles on the cylinder. In order to properly guide the moldings in the operation of finishing them I set the gage *h* at the proper angle and hold the edge of the molding against said gage.

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

1. In combination with the bed-plate B and the saw S, the circular plate T, pivoted to said bed-plate rotatably in a plane at right angles to the saw, the holder U, hinged at one of its edges to one side of said plate, and the set-screw *r*, passing vertically through the holder near the free edge thereof and resting on the plate T, substantially as described and shown, for the purpose set forth.

2. In combination with the saw S, the plate P, pivoted axially parallel with the saw and rotating in a plane at right angles to the saw, and the rests R R, secured to said plate and leaning with their tops outward, as set forth and shown.

3. In combination with the saw S, the plate P, pivoted axially parallel with the saw and rotating in a plane at right angles to the saw and provided with the inclined segmental bearings *a a*, rests R R, leaning with their tops outward, and the clamps *b b*, reaching from the central portion of the plate toward the said rests, substantially as set forth.

4. In combination with the saw S, table A, and the bed-plate B, arranged adjustably in relation to the saw, the slide C, cheek-pieces *c c'*, hinged to said slide, and the gage *d*, connected to the cheek-piece *c*, substantially as described and shown.

5. In combination with the saw, the slide C, formed with inclined sides and provided

with the perpendicular slot *e* at the center, the cheek-pieces *c c'*, hinged to the top of the slide, set-screws *f f*, supporting cheek-pieces adjustably in inclined positions, and the gage *d*, connected to the cheek-piece *c*, substantially as described and shown.

6. The combination, with the abrading-cylinder D, of the gage *h*, supported on a vertical pivot at one end and lying with its free end across the top of said cylinder adjustably in its angle in relation to the axis of the aforesaid cylinder, substantially as and for the purpose set forth.

7. In combination with the abrading-cylinder D, the post *i* at one side of the cylinder, the gage *h*, pivoted on said post and lying across the top of the cylinder, the post *l*, provided with the slotted head *l'*, the plate *n*, secured to the free end of the gage *h* and sliding in the slotted head *l'*, and the set-screw *o*, attached to the said head and adapted to engage the plate *n*, substantially as and for the purpose set forth.

In testimony whereof I have hereunto signed my name, in the presence of two witnesses, at Syracuse, in the county of Onondaga, in the State of New York, this 7th day of January, 1888.

THOMAS D. HAMMOND. [L. S.]

Witnesses:

C. H. DUELL,

JOHN J. LAASS.