

A. J. CONNELL.
CUTTING APPARATUS.
APPLICATION FILED OCT. 27, 1904.

2 SHEETS—SHEET 1.

Fig. 1.

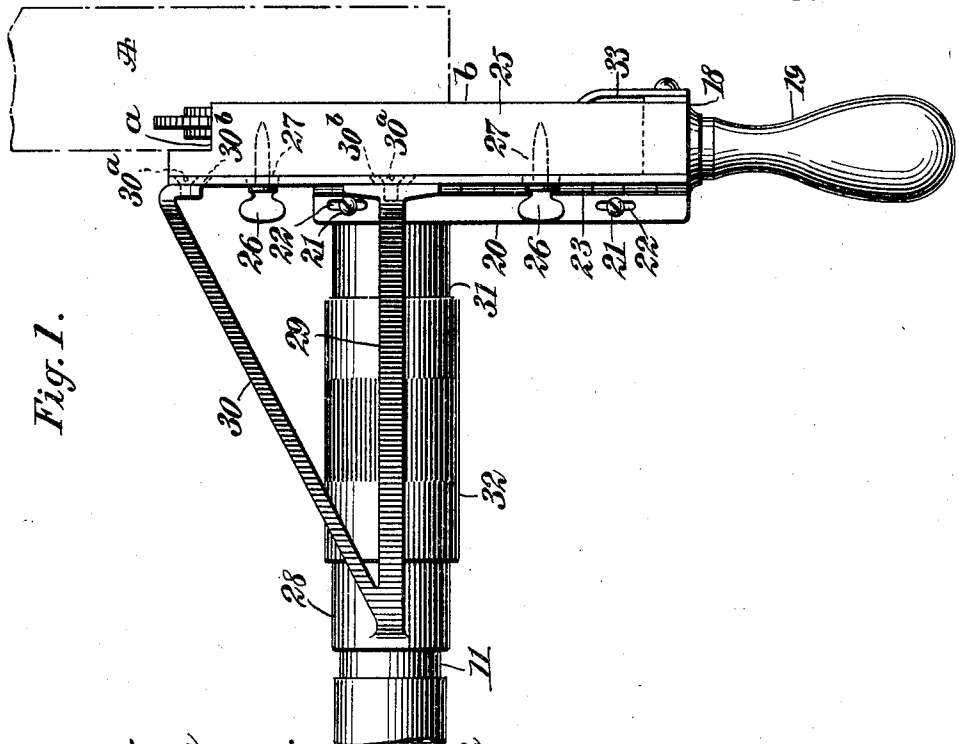
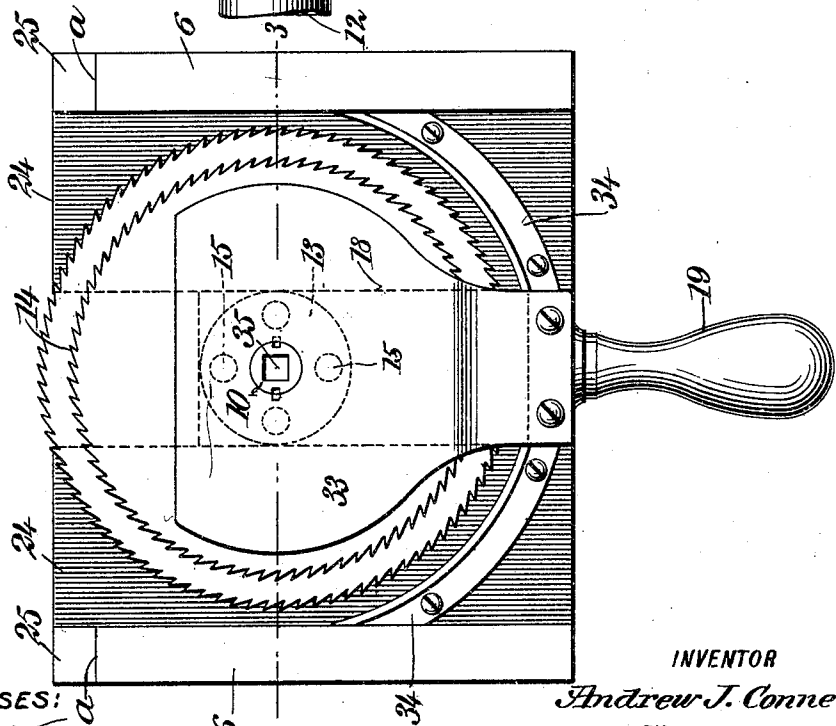


Fig. 2.



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No. 792,967.

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2 SHEETS—SHEET 2.

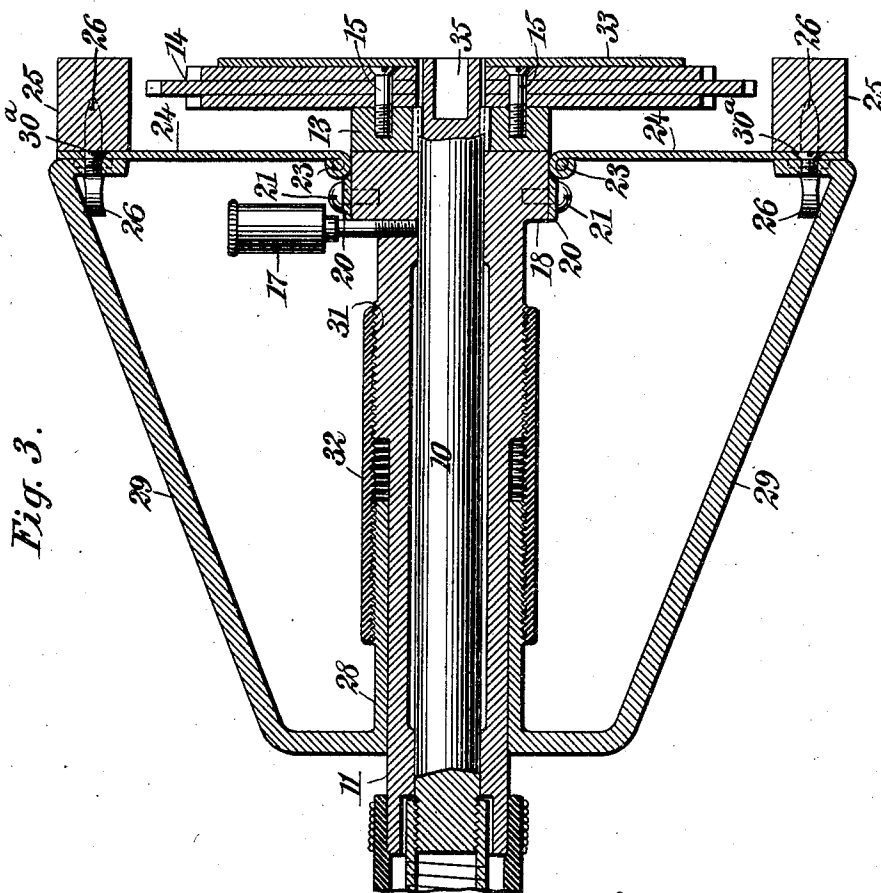


Fig. 3.

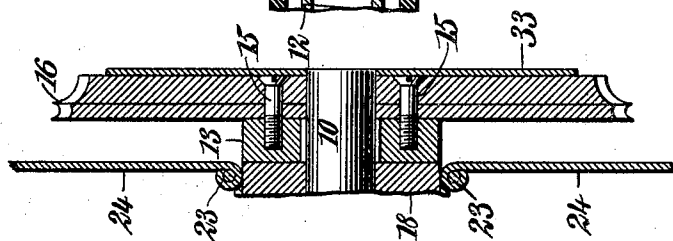


Fig. 4.

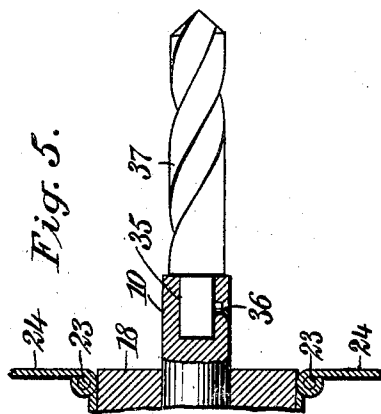


Fig. 5.

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ANDREW J. CONNELL, OF NEW YORK, N. Y.

CUTTING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 792,967, dated June 20, 1905.

Application filed October 27, 1904. Serial No. 230,255.

To all whom it may concern:

Be it known that I, ANDREW J. CONNELL, a citizen of the United States, and a resident of the city of New York, borough of Manhattan, in the county and State of New York, have invented a new and Improved Cutting Apparatus, of which the following is a full, clear, and exact description.

My invention relates to cutting apparatus, and more especially to that adapted for wood-working. Its principal objects are to furnish convenient power-driven mechanism of a portable character in which the relation of the cutters to the work may be readily adjusted.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a side elevation of one embodiment of my invention. Fig. 2 is an end elevation thereof looking from the right in Fig. 1. Fig. 3 is a longitudinal section on the line 3 3 of Fig. 2. Fig. 4 is a sectional detail showing another form of cutting device connected with the apparatus, and Fig. 5 illustrates the connection of a boring-tool to the spindle.

10 designates a spindle rotatable in a bearing-sleeve 11 and connected with power mechanism, preferably by flexible shafting, a portion of which is indicated at 12. Upon the outer end of the spindle is keyed a head 13, to which the cutters—as, for example, a gang of saws 14—may be secured by screws 15. Any suitable form of cutting devices may be substituted, such as molding-cutters 16. (Illustrated particularly in Fig. 4 of the drawings.) The spindle may be lubricated by a cup 17, delivering through the sleeve.

At one side of the outer extremity of the bearing-sleeve is an extension 18, which is shown as provided with a handle 19. At the sides of this extension are secured elongated members 20 conveniently by means of screws 21 passing through slots 22 in the members, and thus permitting their adjustment in a plane parallel to that of the cutter. Hinged to these members at 23 are shown supporting members, preferably in the form of plates 24, which extend substantially parallel to and be-

yond the opposite edges of the cutter. At the outer edge of each supporting-plate is mounted a block 25 by screws 26, which project through slots 27 in the plate. At the end of each block is a contact-face *a*, beyond which the cutter projects, and the depth of the cut may be regulated by either moving the block upon the supporting-plates or the members 20 upon the extension, this being permitted by the slots through which the securing-screws extend.

About the bearing-sleeve is a guide-sleeve 28, from each side of which stays 29 extend to the outer central portion of the supporting-plates, while stays 30 connect at their outer corners opposite the handle. To permit the adjustment by means of the screws 21 and slots 22, the connection between the stays and the plates is preferably by means of screws 30^a, which operate in slots 30^b. The bearing-sleeve preferably has an enlarged portion externally threaded at 31, and with this and with a threaded portion of the adjacent end of the guide-sleeve coöperates an adjusting-sleeve 32. By rotating the adjusting-sleeve in one direction or the other the guide-sleeve will be moved along the bearing-sleeve, swinging the supporting-plates about their hinges, this movement being permitted by the spring of the stays. This varies the relation of outer contact-faces *b* of the guide-blocks to the outer face of the cutter, thus serving to control the distance at which the cut shall be made from an adjacent surface of the work. To prevent accidental injury to such surface by the end of the rotating spindle, a guard-plate 33 may be provided, fixed to the extension 18 and projecting over the cutter. Shields 34 may be attached to the outer side of the plates 24 upon the side next the handle to prevent the chips formed from flying toward the operator.

The end of the spindle, if desired, may be recessed at 35 and provided with a set-screw 36 to allow the application of such a device as a bit or drill 37.

It may be desired to use the apparatus upon such a piece of work as is indicated at A, which has intersecting surfaces, in one of which the cut is to be made at a certain dis-

tance from the other. With the first of these the guide-face *a* of the apparatus will contact and with the latter the face *b*. Before beginning the operation the depth of the cut may
 5 be provided for by moving the guide-block or the hinge members transversely of the spindle by virtue of the slotted connections. This having been done, the handle 19 is grasped by the operator in one hand and the sleeve 32 in
 10 the other and the apparatus applied to the work. The rotation of this sleeve will move the outer faces of the guide-blocks relatively to the outer side of the cutter longitudinally of the spindle, and thus serve to control the
 15 position of the cut, this variation being readily effected when the tool is operating, thereby changing the contour of the cut.

It will be readily seen that the apparatus will be useful in many connections where work
 20 has been erected and it is desired to further operate upon it.

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

1. A cutting apparatus comprising a spindle, a cutter fixed thereon, a sleeve surrounding the spindle, and guides carried by the sleeve at opposite edges of the cutter.

2. A cutting apparatus comprising a spindle, a cutter fixed thereon, a sleeve surrounding the spindle, opposite supporting members extending from the end of the sleeve adjacent to the cutter, and a guide mounted upon each supporting member.

3. A cutting apparatus comprising a spindle, a cutter fixed thereon, a sleeve surrounding the spindle and having an angular extension, a plate pivoted upon the extension, and a guide carried by the plate.

4. A cutting apparatus comprising a spindle, a cutter fixed thereon, a sleeve surrounding the spindle, opposite supporting members extending from the end of the sleeve adjacent to the cutter, a guide mounted upon each supporting member, and stays connecting the
 45 supporting member and sleeve.

5. A cutting apparatus comprising a spindle, a cutter fixed thereon, a sleeve surrounding the spindle, guides carried by the sleeve at opposite edges of the cutter, and means for
 50 adjusting the guides in different planes.

6. A cutting apparatus comprising a spindle, a cutter fixed thereon, a sleeve surround-

ing the spindle, guides carried by the sleeve at opposite edges of the cutter, and means for adjusting the guides longitudinally of the spindle. 55

7. A cutting apparatus comprising a spindle, a cutter fixed thereon, a sleeve surrounding the spindle, guides carried by the sleeve at opposite edges of the cutter, and means for
 60 adjusting the guides transversely of the spindle.

8. A cutting apparatus comprising a spindle, a cutter fixed thereon, a bearing-sleeve surrounding the spindle, a guide-sleeve movable upon the bearing-sleeve, and a guide connected with the guide-sleeve. 65

9. A cutting apparatus comprising a spindle, a cutter fixed thereon, a bearing-sleeve surrounding the spindle, a guide-sleeve movable upon the bearing-sleeve, and a guide connected with the guide-sleeve and with the bearing-sleeve. 70

10. A cutting apparatus comprising a spindle, a cutter fixed thereon, a bearing-sleeve surrounding the spindle, a guide-sleeve movable upon the bearing-sleeve, a guide connected with the guide-sleeve, and an adjusting-sleeve coacting with the bearing-sleeve and guide-sleeve. 80

11. A cutting apparatus comprising a spindle, a cutter fixed thereon, a bearing-sleeve surrounding the spindle, a guide-sleeve movable upon the bearing-sleeve, a supporting member pivoted upon the bearing-sleeve and being connected with the guide-sleeve, and a guide carried by the supporting member. 85

12. A cutting apparatus comprising a spindle, a cutter fixed thereon, a bearing-sleeve surrounding the spindle, a guide-sleeve movable upon the bearing-sleeve, a supporting member pivoted upon the bearing-sleeve and being connected with the guide-sleeve, a guide carried by the supporting member, and a threaded sleeve connecting the bearing-sleeve
 90 and guide-sleeve. 95

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

ANDREW J. CONNELL.

Witnesses:

ARTHUR O'NEILL,
 WILLIAM GULLY.