

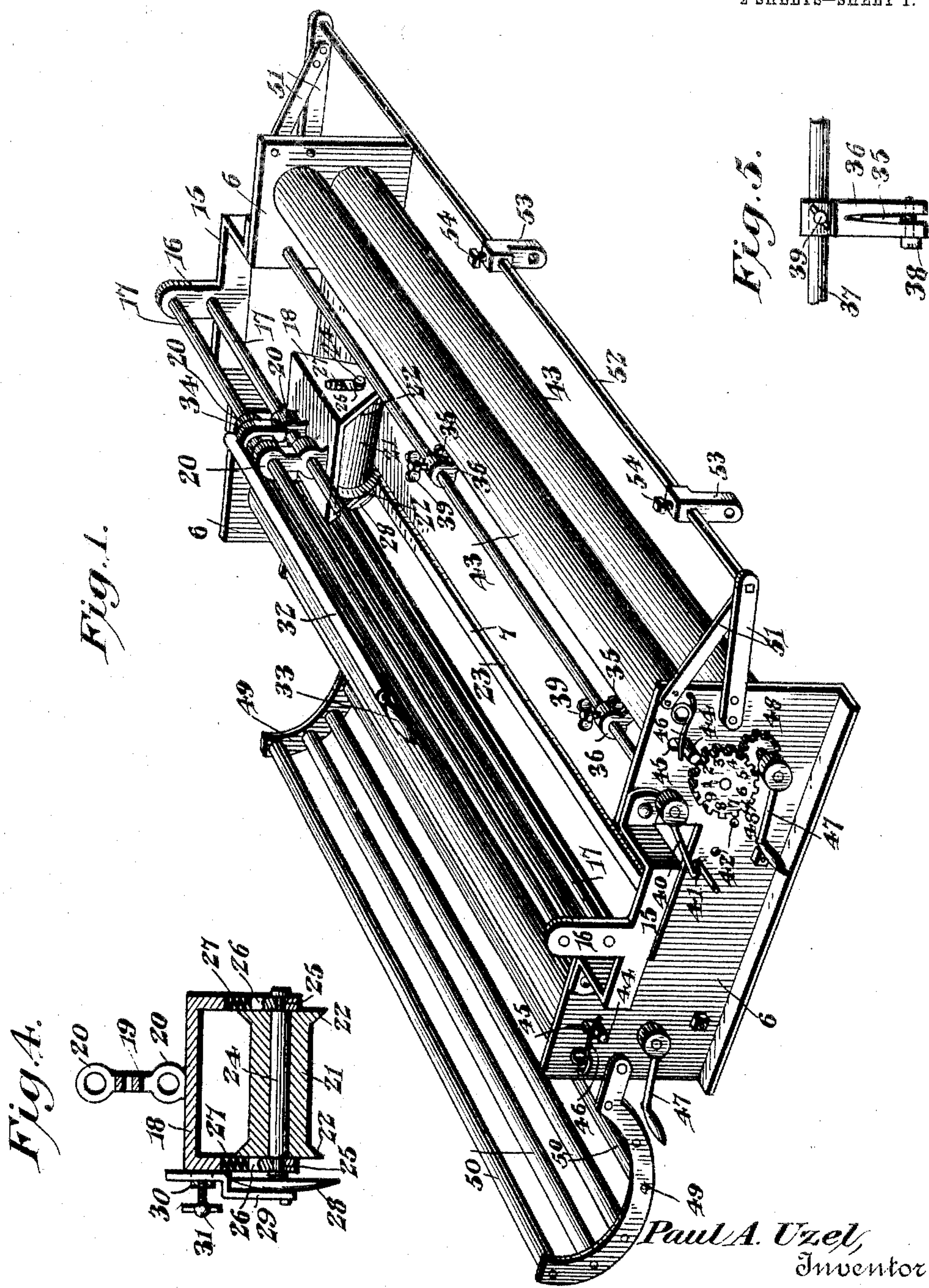
No. 794,060.

PATENTED JULY 4, 1905.

P. A. UZEL.
CURTAIN SHADE CUTTING MACHINE.

APPLICATION FILED JULY 29, 1904.

2 SHEETS—SHEET 1.



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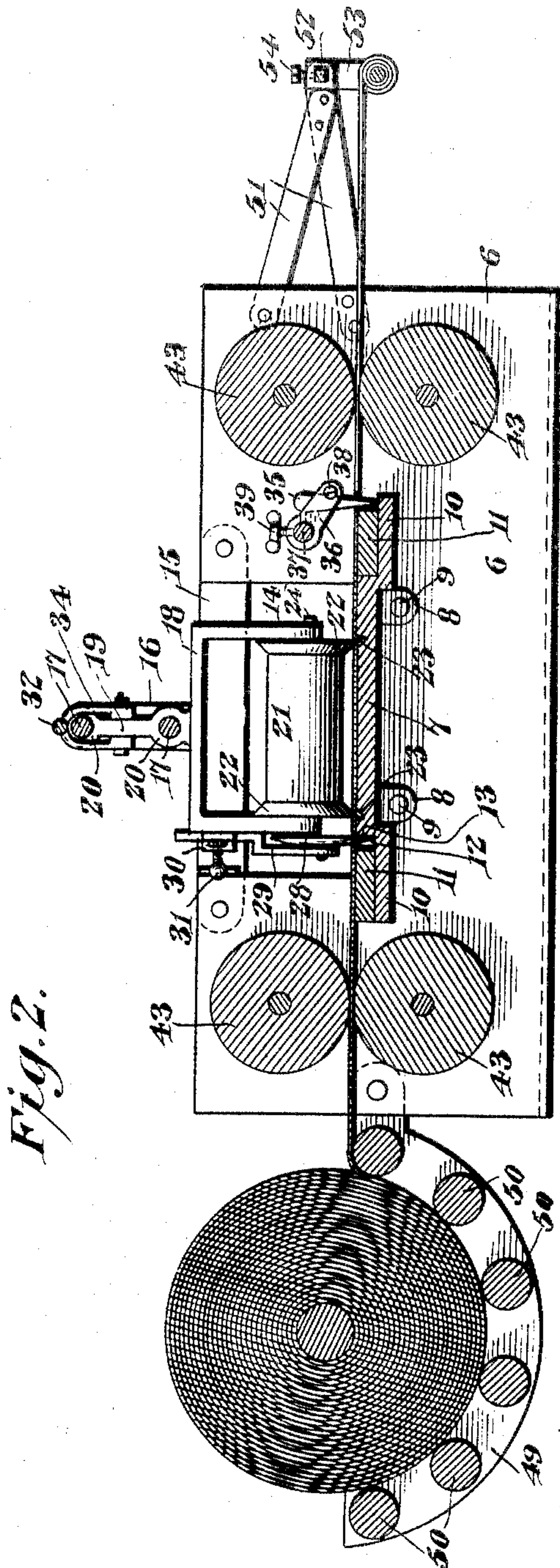


Fig. 2.

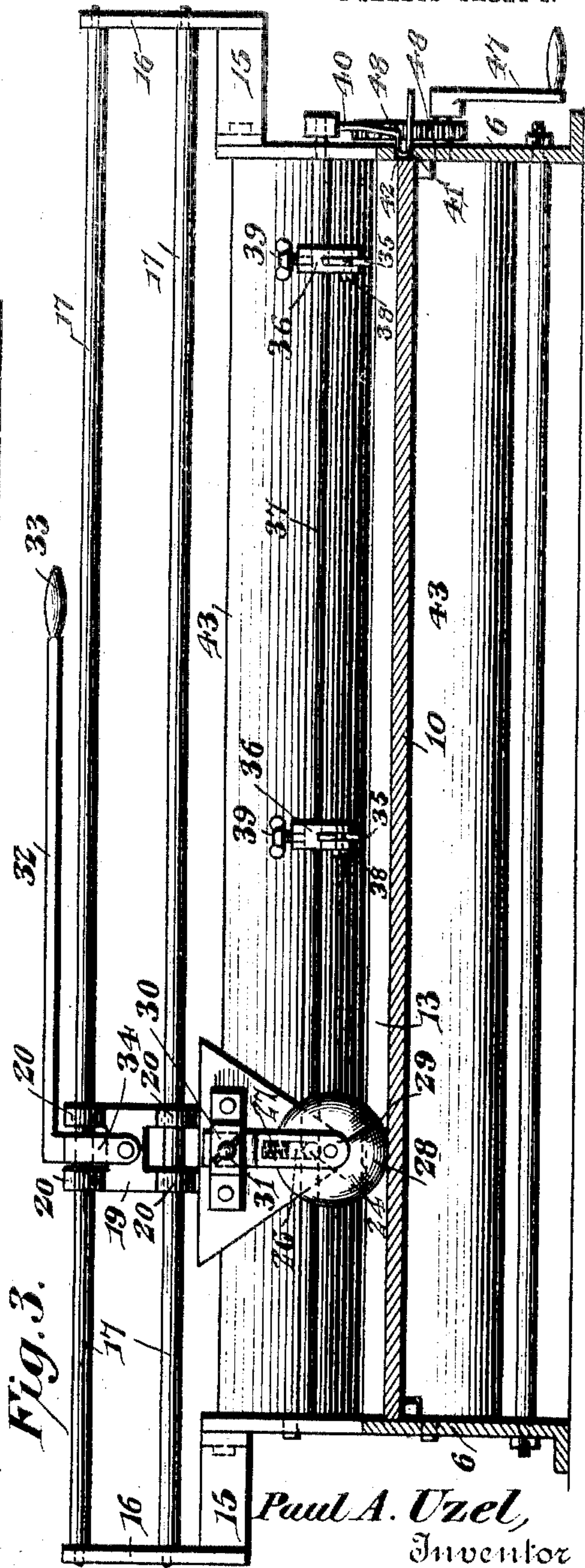


Fig. 3.

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UNITED STATES PATENT OFFICE.

PAUL A. UZEL, OF NASHVILLE, TENNESSEE.

CURTAIN-SHADE-CUTTING MACHINE.

SPECIFICATION forming part of Letters Patent No. 794,060, dated July 4, 1905.

Application filed July 29, 1904. Serial No. 218,731.

To all whom it may concern:

Be it known that I, PAUL A. UZEL, a citizen of the United States, residing at Nashville, in the county of Davidson and State of Tennessee, have invented a new and useful Curtain-Shade-Cutting Machine, of which the following is a specification.

The present invention is particularly intended for cutting shades to proper size from the material in bulk, though probably useful for various analogous purposes.

The object is to provide novel mechanism of this character by means of which curtains can be properly cut with ease and expedition, said mechanism being adjustable, so that curtains of various sizes may be made therewith.

The preferred embodiment of the invention is shown in the accompanying drawings, wherein—

Figure 1 is a perspective view of the machine. Fig. 2 is a sectional view therethrough. Fig. 3 is also a sectional view taken at right angles to Fig. 2. Fig. 4 is a detail sectional view through the carriage with the creasing-spool and cutter thereof, and Fig. 5 is a plan view of one of the side-trimming knives.

Similar reference-numerals indicate corresponding parts in all the figures of the drawings.

In the embodiment illustrated a frame is employed comprising end supporting-plates 6, that are spaced apart and are connected by a table 7, said table having depending ears 8 at its ends, through which fastening devices 9 pass, that also pass through the end supports 6. The opposite side margins of the table are downwardly offset, as shown at 10, thereby forming seats in which are placed bed-strips 11, of wood or other suitable material, one of these strips being spaced slightly from the adjacent shoulder or inner wall of the seat, forming in the table a longitudinally-disposed guideway 12, the shoulder or wall, which is designated 13, constituting, in effect, a ledger-blade.

The end supports 6 are cut away, as shown at 14, and bridging the cut-away portions are brackets 15, secured to the end supports and having upstanding projections 16. Secured to the projections and extending between them

are upper and lower spaced tracks or guide-rods 17, constituting supports for a traveling carriage. The carriage consists of a depending yoke 18, located beneath the tracks or guides and having an upstanding standard 19, provided with eyes 20, that receive the tracks or guides and are slidable thereon. Journaled between the spaced legs of the yoke 18 is a rotatable creasing device in the form of a spool 21, having annular flanges 22 at its ends that taper toward their annular free edges and are arranged to travel in grooves 23, formed in the upper side of the table 7. As shown particularly in Fig. 4, the spool 21 is carried by a shaft 24, and said shaft projects beyond the same, having annular grooves 25, that are located in alinement with the legs of the yoke. Retaining-studs 26, slidably mounted in said yoke, engage in the grooves 25, and thus hold the shaft against displacement, the studs being yieldingly held in position by springs 27, that thus permit an upward yielding movement of the spool while holding it to its work. A cut-off knife in the form of a rotary disk 28 is also mounted on the carriage and is located at one end of the spool, said knife co-acting with the shoulder or wall 13 and traveling in the guideway 12. The knife 28 is journaled upon the lower end of a stem 29, having an offset upper portion that is slidably passed through a boxing 30, located at one end of the carriage. A holding-screw 31, threaded through the boxing, engages the stem, and thus secures the cutter at any height desired. The carriage is reciprocated by means of a handle-bar 32, having a grip 33 at one end and a stirrup 34 at the other, said stirrup embracing the standard 19 and being pivoted thereto.

For the purpose of cutting material the desired width knives 35 are employed, said knives being located in split cranks 36, adjustably secured on a rock-shaft 37, that is journaled in the end supports 6. The split cranks 36, as shown in Fig. 5, embrace the knives 35, the same being held therein by friction caused by pinching the bifurcation together through the medium of a screw 38. The cranks 36 are both rotatably and longitudinally adjustable on the shaft 37 and are

held against both movements by means of set-screws 39, threaded through the hubs of the cranks and bearing against the shaft. One end of this shaft 37 is provided with a spring-handle crank 40, having an inset portion 41, that is arranged to engage in sockets 42, formed in the adjacent end support 6.

Sets of upper and lower guide-rollers 43 are located on opposite sides of the table 7 and are journaled in the end supports 6. The upper rollers are permitted to have a slight vertical movement because of their gudgeons 44, passing through slots 45, made in the supports 6, said gudgeons, however, being borne down upon by springs 46. The lower rollers have connected thereto handle-crank 47. One roller of one of the sets has connected thereto suitable measuring means shown in the particular embodiment illustrated as intermeshing gear-wheels 48, one of which is provided with a series of numbers designating feet. Carried by the frame and located at one side of the same is a supporting-basket for the material to be cut, said basket comprising end brackets 49, secured to the end supports 6 and having journaled therein a semicircular series of supporting-rollers 50, constituting means for supporting a roll of material. Projecting from the opposite side of the frame is a pair of brackets 51, connected by a cross-bar 52, that is preferably angular in cross-section, said bar having slidably mounted thereon a pair of depending ears 53, that are thus movable toward and from each other and are adapted to be held against such movement by set-screws 54, threaded through them and engaging the bar.

In using this apparatus a roll of the material to be cut is placed in the basket, as illustrated in Fig. 3. The carriage, with its creasing-spool and cut-off knife, is moved to one side beyond the table and into one of the cut-out portions of the end support. The side-trimming knives are adjustably mounted on the rock-shaft at the proper distance apart and at the desired position with respect to the roll of material. While two of the knives are shown, it will be apparent that more may be placed upon the rock-shaft if several widths are to be cut. The rock-shaft is then turned in the proper direction, so that the knives will be elevated from their coaction with the adjacent edge of the table, and the material is then passed through the first set of rollers over the table and engaged in the other set. The rock-shaft is then turned to throw the knives downwardly, so that they will pierce the sheet of material and be located in coaction with the table. The rearmost set of guide-rolls is turned by means of the handle-crank 47 until the cut material is passed through the same, whereupon the small uncut end can be torn off and the cut end tacked to the curtain-roller. This roller is then journaled in the ears 53, which are prop-

erly adjusted upon the supporting-bar 52, and the material is then drawn on through, the curtain being cut to the proper width and being rolled upon the curtain-roller, as will be apparent. When the length desired has been secured, the same will be shown upon the measuring means, and thereupon the carriage is drawn across the table. As a result of this movement the rotary cut-off knife will sever the sheet, and at the same time creases will be formed in the terminal of the curtain by means of the flanges 22 of the spool 21, all of which will be apparent by reference to Fig. 2. The curtain-blank has thus been cut from the roll of material to the proper width and length and needs only to be stitched and have the stick inserted to complete the curtain. A repetition of the above operation will cut another curtain in the same manner, and thus it will be apparent that these articles can be expeditiously and cheaply made.

From the foregoing it is thought that the construction, operation, and many advantages of the herein-described invention will be apparent to those skilled in the art without further description, and it will be understood that various changes in the size, shape, proportion, and minor details of construction may be resorted to without departing from the spirit or sacrificing any of the advantages of the invention.

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

1. In a trimming-machine of the class described, the combination with a support, of spaced sets of coacting rollers journaled therein, side-trimming knives located and operating between said sets of rollers, and a transversely-movable cut-off knife also located and operating between said sets of rolls.

2. In a trimming-machine of the class described, the combination with a table, of sets of coacting guide-rollers located on opposite sides of the table, a side-trimming knife located between the sets of rollers and coacting with the table, and a cut-off knife coacting with the table and located between said sets of rollers.

3. In a trimming-machine of the class described, the combination with a single stationary table, of side-trimming knives, a cut-off knife and a creasing device all coacting with the table.

4. In a trimming-machine of the class described, the combination with a supporting-frame, of a table located therein, spaced sets of guide-rollers journaled on the frame and located at opposite sides of the table, side-trimming knives coacting with the table, a transversely-movable cut-off knife coacting with the table, and a creasing device also coacting with the table.

5. In a trimming-machine of the class described, the combination with a frame com-

prising end pieces, of a table connected to and supported by the end pieces, spaced sets of rollers journaled in the end pieces and located at opposite sides of the table, cutting-knives coacting with the table, a support for said cutting-knives mounted in the end pieces, a transversely-movable carriage, a creasing-roller journaled in the carriage and coacting with the table, and a rotary cut-off knife mounted on the carriage and coacting with the table.

6. In a trimming-machine of the class described, the combination with a table, of a carriage, a guide for the carriage supported above the table, a creasing device mounted on the carriage, a cutter adjustably mounted on the carriage, and means for holding the cutter against its adjustable movement and in different relations with respect to the creasing device.

7. In a trimming-machine of the class described, the combination with a table, of a carriage, an upright stem carried by and adjustable up and down upon the carriage, means for securing the stem against such movement and in different positions and an upright rotary cutter journaled on the stem.

8. In a trimming-machine of the class described, the combination with a table, of a carriage movable over the table and having an upright boxing, at one side, a substantially vertical stem slidably mounted in the boxing, a holding-screw engaging the stem to clamp the same against movement and in different vertical positions, and a cutter carried by the stem, said cutter being adjustable with the stem and coacting with the table.

9. In a trimming-machine of the class described, the combination with a table over which the material is moved, of supports located at the opposite edges of the table and having outstanding portions extending outwardly beyond said edges, a track connecting the outstanding portions and extending over the table, a carriage movably mounted on the track and movable into the outstanding portions of the supports and thereby out of the path of movement of the material over the table, and means for operating on the material located on said table, said means being carried by the carriage and coacting with the table.

10. In a trimming-machine of the class described, the combination with a frame comprising end pieces, of a table connecting the same and located therebetween, said end pieces having cut-away portions, supporting and outstanding brackets secured to the end pieces and bridging the cut-away portions, spaced tracks connecting and supported by the brackets, a carriage slidably mounted on the tracks and including a depending yoke, said carriage being movable into the cut-away portions of the end pieces, into the outstanding brackets and beyond the path of movement of the material on the table, a creasing-spool jour-

naled in the yoke and coacting with the table, and a rotary cutter mounted on the carriage and coacting with the table.

11. In a trimming-machine of the class described, the combination with a table, of a rock-shaft, a cutter adjustably mounted on the rock-shaft and coacting with the table, and means for holding the rock-shaft in a plurality of positions.

12. In a trimming-machine of the class described, the combination with a frame comprising end supports and a table located therebetween, of a rock-shaft journaled in the supports contiguous to one edge of the table, means for securing the rock-shaft in a predetermined position, and knives adjustably mounted on the rock-shaft and being movable by said rock-shaft into and out of coaction with one margin of the table.

13. In a trimming-machine of the class described, the combination with a frame comprising supporting end pieces, of a table connecting and located between the end pieces, sets of rollers journaled in the end pieces on opposite sides of the table, a rock-shaft journaled in the end pieces and extending longitudinally of the table above one margin thereof, holding means carried by one end of the shaft and adjustably engaging the adjacent end piece and knives adjustably secured to the rock-shaft and coacting with one edge of the table.

14. In a trimming-machine of the class described, the combination with a support including end pieces and a table connecting the same, of cutting mechanism mounted on the support and coacting with the table, and a basket located at one side of the support and comprising spaced curved end brackets having offset ends secured to the end pieces and rollers journaled at their ends in said brackets and located between the same, said rollers constituting supporting means for the roll of material to be cut.

15. In a trimming-machine of the class described, the combination with a support, of cutting mechanism mounted thereon, a roll-holder located at one side of the support, and curtain-roller-supporting means located at the other side of the support, said curtain-roller-supporting means including roller-engaging ears having sockets for receiving the roller-gudgeons, said ears being adjustable toward and from each other.

16. In a trimming-machine of the class described, the combination with a frame comprising end pieces and a table connecting the same and located therebetween, of spaced sets of guide-rollers journaled in the end pieces and disposed on opposite sides of the table, cutting mechanism located between the rollers and coacting with the table, a roll-holding basket mounted at one side of the frame and including a curved series of supporting-rollers, brackets projecting from the opposite

side of the frame, a cross-bar connecting the brackets, and roller-engaging ears adjustably mounted on the bar.

17. In a trimming-machine of the class described, the combination with a table, of a carriage movable with respect thereto, a creasing device yieldingly mounted on the carriage and coacting with the table, and a cutter carried by the carriage and mounted thereon independently of the creasing device.

18. In a trimming-machine of the class described, the combination with a table, of a carriage arranged to travel thereover, a creasing device yieldingly mounted on the carriage and movable therewith, said device coacting with the table, and a cutter adjustably supported on the carriage independently of the creasing device and also coacting with the table.

19. In a trimming-machine of the class described, the combination with a supporting-frame, of cutting mechanism mounted thereon and including a rock-shaft journaled in the frame, a cutter carried by the rock-shaft

and movable therewith, a crank-arm mounted on the rock-shaft and having an adjustable engagement with the frame for holding said rock-shaft in different positions, and means for directing the material to be cut through said frame.

20. In a trimming-machine of the class described, the combination with a supporting-frame, of cutting mechanism mounted thereon, and curtain-roller-supporter means located at one side of the supporting-frame, said means comprising brackets, a bar connecting the brackets, and offset ears adjustably mounted on the bar and having sockets to receive the usual gudgeons of a curtain-roller.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

PAUL A. UZEL.

Witnesses:

H. C. WEBER.

HARRY A. LUCK.