

J. B. BRASSARD.  
LEATHER WORKER'S TOOL.  
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944,660.

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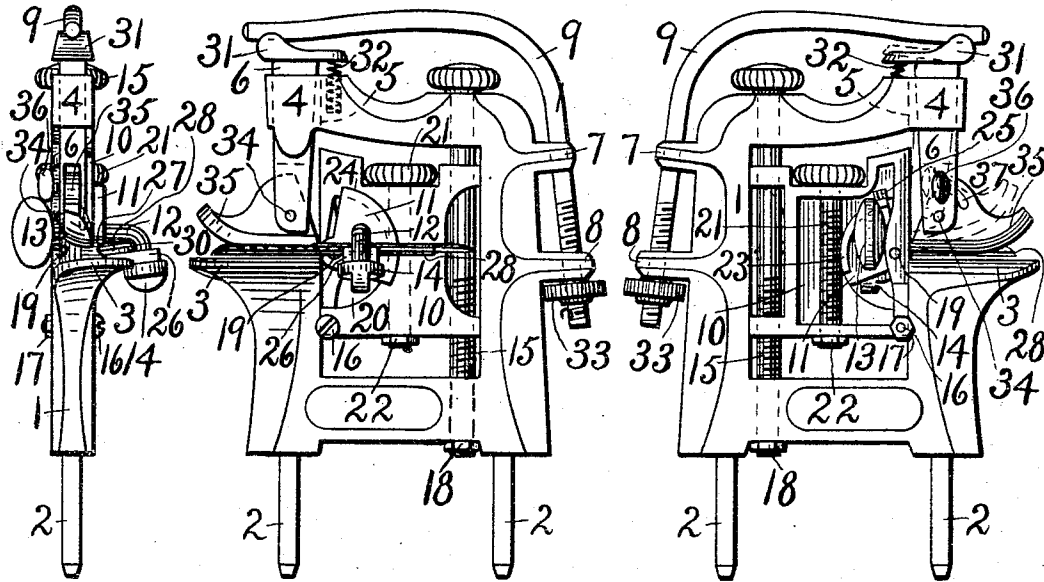


FIG. 1.

FIG. 2.

FIG. 3.

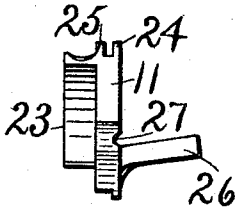


FIG. 5.

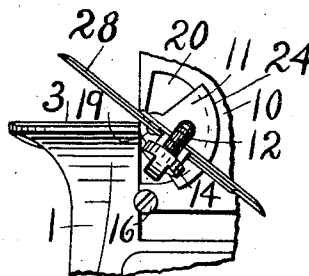


FIG. 4.

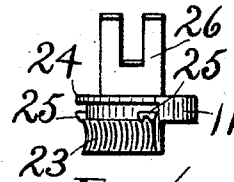


FIG. 6.

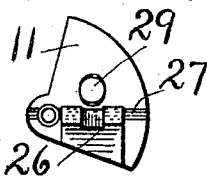


FIG. 7.

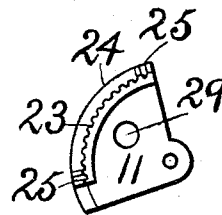


FIG. 8.

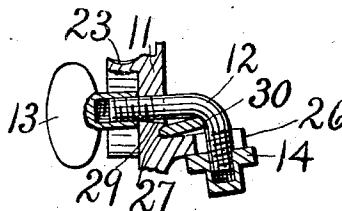


FIG. 9.

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# UNITED STATES PATENT OFFICE.

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## LEATHER-WORKER'S TOOL.

944,660.

Specification of Letters Patent.

Patented Dec. 28, 1909.

Application filed October 8, 1908. Serial No. 456,698.

*To all whom it may concern:*

Be it known that I, JEAN B. BRASSARD, a citizen of the United States of America, residing at Holyoke, in the county of Hampden and State of Massachusetts, have invented a new and useful Leather-Worker's Tool, of which the following is a specification.

My invention relates to improvements in bench tools adapted for use in the making of harnesses and other leather goods or manufactures, and consists essentially of a suitable frame provided with certain peculiar means for holding the knife and for adjusting the same or permitting it to be adjusted, and with certain peculiar means for guiding and holding down the work while the latter is being drawn under such knife to be cut, all as hereinafter set forth.

The objects of my invention are, first, to produce a simple, compact, convenient, durable, and efficient tool for leather workers' use, which is adapted to serve as a layer, skiver, edger, splitter, and skirt trimmer, and in various other capacities such as for beveling and rabbeting purposes; second, to provide a tool of this kind which is capable of holding any suitable knife in whatever position may be necessary or desirable in order to bring about the desired results; third, to provide such a tool which is capable of properly guiding and confining the leather while being drawn beneath the knife blade, and, fourth, to furnish a single tool to take the place of a number of differently constructed individual implements now commonly employed and to do the work of such individual implements as well as or better than it can be done by or with them. I attain these objects by the means illustrated in the accompanying drawings, in which—

Figure 1 is a front edge view of my tool; Fig. 2, an elevation of what may be termed the front side of such tool; Fig. 3, an elevation of the opposite or back side of said tool, two positions of the presser foot being shown, one in full lines and the other in dotted lines; Fig. 4, a front elevation of a fragment of the tool, showing the knife adjusted for edge trimming; Fig. 5, an enlarged, front edge view of the knife holder sector; Fig. 6, a plan view of such sector; Fig. 7, a front side elevation of said sector; Fig. 8, a back side elevation of the same, and, Fig. 9, an enlarged, sectional view of the knife holder complete, with the knife tilted transversely to the maximum extent.

Similar figures refer to similar parts throughout the several views.

Referring to the drawings it will be observed that I provide a frame 1 which is adapted to be held in an upright position on a bench by means of two vertical pins 2 extending downwardly from the bottom of said frame to be received into suitable holes in such bench. The frame 1 is open in the center, and the front side of said frame is cut away in its upper part and has a small horizontal rest or table 3 for the work, such table being rounded, somewhat, laterally. The inside faces of the sides of the frame 1 are parallel. In the front end of the top of the frame, which constitutes a head 4, above the table 3, is a vertical passage 5 for a bar 6, such passage being large enough to permit to such bar some little play to and fro. Projecting outwardly from the back edge of the frame are two perforated lugs 7 and 8 which receive the downwardly-extending arm of a bent rod 9.

Fitted within the frame 1 and arranged to reciprocate vertically therein is a carrier 10 for a knife holder which comprises a sector 11, a bent rod 12, and two thumb-nuts 13 and 14. The carrier 10 is held against lateral displacement and guided by means of a vertical thumb-screw 15 behind and a horizontal screw 16 and nut 17 in front. The thumb-screw 15 passes through the top and bottom of the frame and through intermediate parts of the carrier 10, and is in threaded engagement with one of such parts of the carrier for the purpose of raising and lowering said carrier, when the thumb-screw is rotated, according to the direction of such rotation. The thumb-screw 15 is prevented from moving longitudinally by means of its head above the top of the frame and a nut 18 on said thumb-screw below the bottom of said frame. The front of the frame is embraced between the head of the screw 16 and the nut 17, and it is in this manner and by this means that the carrier is guided at the front edge.

The sector 11 is pivoted at 19 to the carrier 10. Said carrier has a segmental opening 20 therein, and is provided with a vertical thumb-screw 21 adjacent to the inner edge of such opening. The thumb-screw 21 is prevented from reciprocating by its head above the carrier and a nut 22 on said thumb-screw below said carrier. This thumb-screw meshes with a segment-gear 23

which forms a part of the sector 11, and so serves in the capacity of a worm to actuate when rotated said sector on its pivot 19 in one direction or the other according to the direction given said thumb-screw. The thumb-screw 21 is permitted to rotate freely in the carrier, as is the thumb-screw 15 in the frame 1.

The sector 11 embraces the sides of the curved edge of the opening 20 in the carrier 10 with a flange 24 on the face of said sector and two lugs 25 on the back of the sector, and is guided by this means as it turns upon the pivot 19, or, in other words, as it is radially adjusted. The segment-gear 23 is on the back side of the sector 11 and on the front side or face of said sector is a slotted lug 26 that projects outwardly from such face. A groove 27 is cut in the face of the sector to receive one edge of a knife 28. There is a hole or opening 29 in the sector, above the center of the lug 26, for the long arm of the rod 12, the sides at the top and bottom of such opening being tapered so that at the front end said opening is vertically elongated and consequently larger than at the back end. By tapering the opening 29 in this way provision is made for tilting the rod 12 for the purpose of changing the adjustment of the knife 28 in the manner presently to be described. The ends of the rod 12 are screw-threaded to receive the thumb-nuts 13 and 14, the former being on the long arm of said rod behind the sector and the latter on the short arm of said rod under the lug 26. The short arm of the aforesaid rod enters the cleft in said lug 26. A notch 30 is formed inside of the bent part of the rod 12 to receive the edge of the knife 28 which is opposite that which is received in the groove 27.

Knives having different kinds of blades may be employed with my tool, provided the bodies of such knives will fit the holder. The knife herein shown has a blade at each end, one for skiving or trimming and one for splitting, the former blade being at the front end in the present arrangement and the latter at the rear end. Any knife, in order to fit the holder properly, should have a more or less flat body in cross-section, as is usual with knives of this character.

An overhanging head 31 on the bar 6 affords a bearing for the forwardly-extending arm of the rod 9 above and for a spring 32 below. The spring 32 is pocketed in the head 6 of the frame 1 behind the opening 5 and exerts an upward pressure on the head 31 and the bar 6. The lower terminal of the rod 9 is screw-threaded and a thumb-nut 33 is screwed onto such terminal below the lug 8. By turning the thumb-nut 33 on the rod 9 in one direction or the other said rod is raised or lowered accordingly and so either permits the bar 6 to rise under the

influence of the spring 32 or presses said bar downward against the force of said spring. In this manner the bar 6 may be adjusted at any desired height and there held, but held yieldingly in some measure since there is a certain amount of resiliency in the rod 9.

Pivoted at 34 to the bar 6 near the base of said bar is a presser foot 35. The foot 35 is over the table 3 and may be held with the straight part of its base parallel with said table by means of a thumb-screw 36 which is tapped into the back side of the bar 6 and arranged to engage the adjacent side of the foot, or said foot may be held with said straight part of the base tilted upward at a greater or less angle by the same means.

37 represents a segmental groove which is provided in the back side of the foot for the accommodation of the inner or front end of the thumb-screw 36, and I prefer to deepen the inner end of this groove so as to enable the foot to be positively locked when in what may be termed its horizontal position, which is the position illustrated by full lines in the drawings. By loosening the thumb-screw 36 the foot is left free to rock on its pivot 34 and to conform its position to the work on the table below. The arrangement of the bar 6 and its governing members is such that, no matter in what position the foot 35 may be placed or what position it may assume, the heel of said foot always bears against the adjacent edge of the carrier 10, which latter thus affords a rear guide for the foot. The arrangement just referred to consists of the loose bearing for the bar afforded by the head 4, and the bearing of the spring 32 under the head 31 behind the bar and the bearing of the rod 9 on said head at the front end thereof. In Fig. 3 the maximum tilt and consequent extreme backward or inward position of the foot are indicated by dotted lines.

In practice, the knife 28 is inserted in the holder therefor, while the thumb-nuts 13 and 14 are loose, and arranged therein with one of its blades extending the desired distance over the table 3, then said thumb-nuts are tightened. The knife, with its front edge in the groove 27 and its back edge in the notch 30, is now held securely on the lug 26 between the body of the sector and the rod 12. The cutting edge of the blade over the table 30 is, of course, directed to the left or to the rear accordingly as one views the tool edgewise from the front or looks at it from the front side. The knife may lie flat on the lug 26 and be held in that position, as shown in Figs. 1, 2 and 4, or it may be arranged with all excepting the front edge clear of said lug, as shown in Fig. 9. This tilting of the knife is accomplished by manipulation of the thumb-nuts

13 and 14 and of the rod 12, and in this way the knife can be adjusted at any angle between the two extreme positions shown, as will be readily understood. The more the knife is tilted in this way in cross-section or transversely the deeper cut it will make. After thus adjusting and securing the knife 28 it is located with its working blade the right distance above the table 3 and placed with such blade in the proper relative position thereto by means of the thumb-screws 15 and 21, respectively, the latter acting through the medium of the sector 11 with its segment-gear. In the first three views the knife is held by the sector in a horizontal position, while in Fig. 4 said knife is held at a steep incline by said sector. The range of adjustment which is made possible by the movable members that pertain to this feature of the invention is a wide one and the adjustment is delicate.

The foot 35 is adjusted in proper relation to the adjacent knife blade in front or to the right of the same by raising or lowering the upwardly spring-pressed bar 6 through the medium of the rod 9 and the thumb-nut 33, and by fastening said foot with the thumb-screw 36 after swinging it on the pivot 34 into the required position, as hereinbefore clearly explained.

The leather to be trimmed, split, skived, or otherwise cut, is inserted between the table 3 below and the foot 35 and the knife 28 above and drawn forward or to the right, and as said leather is drawn over said table and under said knife it is cut by the latter. The foot holds down the leather adjacent to the cutting edge of the blade at this end of the knife and so insures an even or uniform cut.

The shape and size of some or all of the parts of my tool may be changed and modifications in minor details of construction might be made without departing from the nature of my invention.

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

1. In a leather worker's tool, a knife holder comprising an angular member, and a second angular member mounted in adjustable relation to the first and adapted with the latter to hold a knife by the edges and when adjusted to adjust such knife and change its angular relation to the face of the holder.

2. A leather worker's tool comprising a knife holder and means forming parts of the same to grasp a knife by the edges and tilt it transversely in said holder through the medium of the grip afforded thereby on the edges of said knife.

3. In a leather worker's tool, a knife holder comprising a perforated angular member, a second angular member having its terminals in the perforations in said

first-mentioned angular member, and nuts on the ends of said second angular member which extend beyond said first angular member, said members being adapted to hold a knife by the edges between them and to retain it at different angles relative to the face of the holder, according to the manner of adjustment of said nuts.

4. A leather worker's tool comprising a sector provided with a forwardly-extending projection, a bent rod attached to said sector and its projection, such rod in conjunction with the sector and projection being adapted to hold a knife, and rotary means of adjustment for such sector whereby to position a knife so held.

5. A leather worker's tool comprising a sector provided with a forwardly-extending projection, a bent rod mounted in adjustable relation to said sector and its projection, such rod in conjunction with the sector and projection being adapted to hold a knife at different angles relative to the face of said sector, and rotary means of adjustment for such sector whereby to change the longitudinal direction of said knife.

6. A leather worker's tool comprising a suitable frame, a vertically-adjustable carrier therein provided with a non-reciprocating screw, and a knife-holding sector pivotally attached to said carrier and having its teeth in mesh with said screw.

7. A leather worker's tool comprising a suitable frame, a vertically-adjustable carrier therein provided with a non-reciprocating screw, a sector pivotally attached to said carrier and having its teeth in mesh with said screw, such sector being provided with a forwardly-extending projection, and a bent rod mounted in adjustable relation to said sector and its projection, such rod in conjunction with the sector and projection being adapted to hold a knife at different angles relative to the face of said sector.

8. A knife holder, for a leather worker's tool, comprising a perforated member provided with a slotted lug, a bent rod passing through the perforation in said member and through the slot in said lug, and nuts on the ends of said rod, such nuts being respectively behind said member and below said lug.

9. The combination, in a leather worker's tool, with a suitable frame, and a vertically-adjustable carrier therein provided with a non-reciprocating screw, of a sector pivoted to said carrier and provided with a segment-gear which meshes with said screw, and means to fasten a knife to said sector.

10. The combination, in a leather worker's tool, with a frame provided with a table for the work, and a knife holder adapted to support a knife in operative relation to such table, of a bar mounted in said frame above said table, a presser foot pivotally attached

to the lower terminal of said bar, said presser foot having a recess in the side thereof next to the bar, and a screw tapped into the bar and adapted to engage the recessed part of the presser foot to lock said foot in place after being adjusted on its pivot.

11. The combination, in a leather worker's tool, with a frame provided with a table for the work and with holding means for a rod, and a knife holder adapted to support a knife in operative relation to such table, of a bar mounted in said frame and provided with a presser foot for the work, said bar having an overhanging head, a spring between the frame and said head at one side of the bar to tension the latter upwardly, a

bent rod mounted for vertical adjustment in said holding means and arranged to bear at one end on the head of said bar, and a nut in threaded engagement with the lower terminal of said rod below said holding means.

12. The combination, in a leather worker's tool, with a frame provided with a table for the work, and a knife holder adapted to support a knife in operative relation to said table, of a presser-foot for the work above said table, and means yielding in opposite directions to retain said foot in position.

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Witnesses:

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