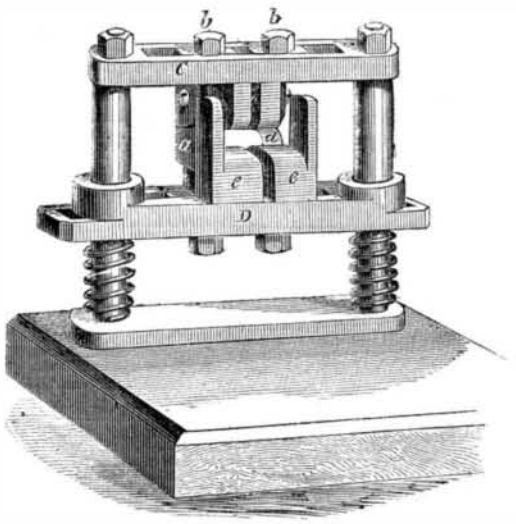
STEMPEL'S TRACE-TRIMMER.

This is a simple little device for trimming the corners of traces in a rounding form, by drawing them between two curved knives, which are set in a frame in such manner that they may be adjusted to traces of different widths. In the cut, *a a* are the curved knives, firmly



fastened by screws to the blocks, *b b*, which blocks may be secured at any desirable distance apart (depending on the width of the trace) in the slot in the cross-bar, C. The blocks, *e e*, which are fashioned to guide the belt and hold it in a proper position in relation to the knives, are also adjustable in the slot in the cross-bar, D, to which they are secured, and which is held in position by spiral springs, so that it may yield, and thus adapt itself to leather of various thicknesses. When the knives and guiding-blocks are properly set, the belt is drawn through between them, and is thus quickly trimmed on both sides with the utmost nicety.

This invention was made by Adolphus Stempel, of Newark, N. J., who has assigned it to himself and Owen McFarland. The patent was issued Oct. 4, 1859, and inquiries for further information in relation to the matter may be addressed to A. Stempel or O. McFarland, at Newark, N. J.

COMBINED PUNCH AND PINCHERS.

The accompanying engraving illustrates a convenient implement for fastening belts together, intended especially to be used in combination with a peculiar belt-hook which is plainly represented in Fig. 3.

Fig. 1

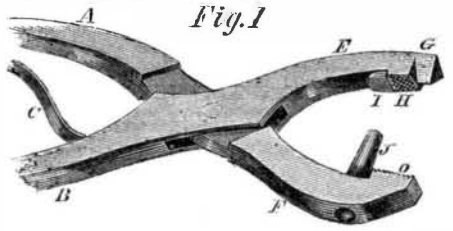


Fig. 2

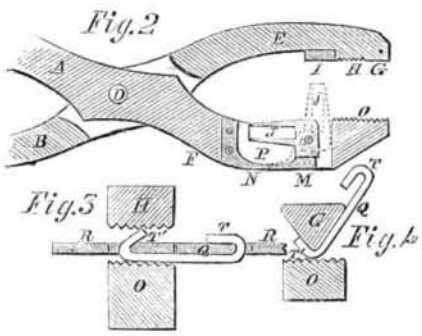
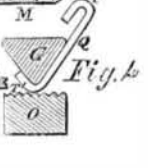


Fig. 3

Fig. 4

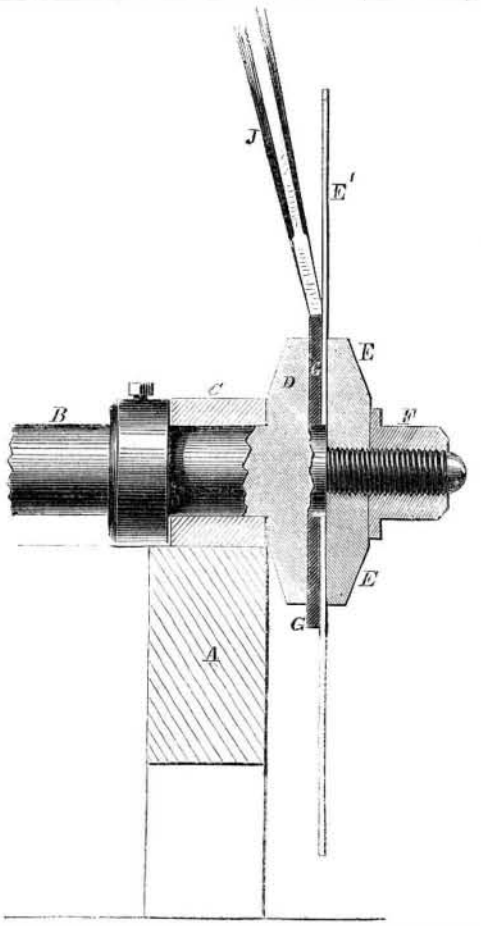


A pair of ordinary pinchers, Figs. 1 and 2, are constructed with peculiar shaped jaws and a pivoted punch which may be turned down out of the way into a recess provided for it in one of the jaws. The punch, J, Fig. 2, is pivoted at L, so that it may be turned into the recess as represented, or may be turned up into the position shown by the dotted lines. The spring, P, holds it in either position. I, is a piece of copper or other soft metal to meet the edge of the punch; H, and O are roughened surfaces by which the belt may be held when it is grasped by the pinchers. Fig. 3 represents the mode of fastening the ends of the belt together. Q, is one of the metallic belt-hooks, of which several are used, the number varying with the size of the belt; R, and R, are the two ends of the belt, O and H, are the two jaws of the pinchers in the act of bending down one end of the belt-hooks, the opposite end having been previously bent as shown. When it is desired to shorten the belt, one end is cut off along the holes of the hooks, the waste piece is seized by the pinchers and twisted out from the hold of the hooks, and the free ends of the hooks are partly straightened by means of the triangular end, G, of the jaws, as shown in Fig. 4.

The patent for this invention was granted Sept. 27, 1859, to Noah E. Hale, of Nashua, N. H., to whom inquiries for further information in relation to it may be addressed.

COLVILLE'S IMPROVED METHOD OF ADJUSTING CIRCULAR SAWS.

The great velocity with which circular saws are caused to revolve renders it very important that they should run uniformly in one plane without any vibration, and the perfect accomplishment of this object has been practically one of the most difficult things in using this most valuable implement. The device which we here illustrate must apparently obviate the difficulty completely.



It consists in interposing a ring of copper between the two collars which hold the saw in place on the shaft, and upsetting or thickening this ring as may be required to bring the saw at precisely right angles with the shaft. E is the saw, B the shaft, C one of the journals, and A the support of the journal, C. The collar, D, is fixed firmly on the shaft, while the collar, E, is loose and is held by the nut, F. G is the copper ring placed around the shaft between the saw and the fixed collar, D, beyond the edge of which it projects about an eighth of an inch. The punch or chisel, J, with a square end, is used for driving upon the edge of the copper ring, on which ever side is found necessary to bring the saw to precisely right angles with the shaft. By this plan the saw may be fixed with the most exact nicety without removing the nuts and collars, and with the least possible labor.

The patent for this invention, which was obtained through the Scientific American Patent Agency, was issued Nov. 1, 1859, to John Colville, of Wilmington, N. C., who has assigned the right to himself and T. L. Colville, and inquiries for further information may be addressed to either of those gentlemen as above.

Hon. Judge Mason, Ex-Commissioner of Patents, is now in Washington, busily employed in the preparation of a case to be argued by him before the United States Supreme Court, involving a claim against the government of $6,000,000.