W. Eglestor,

Tanners Tool

No. 1,064. Patented Jan. 8, 1839.

Fig. 1.

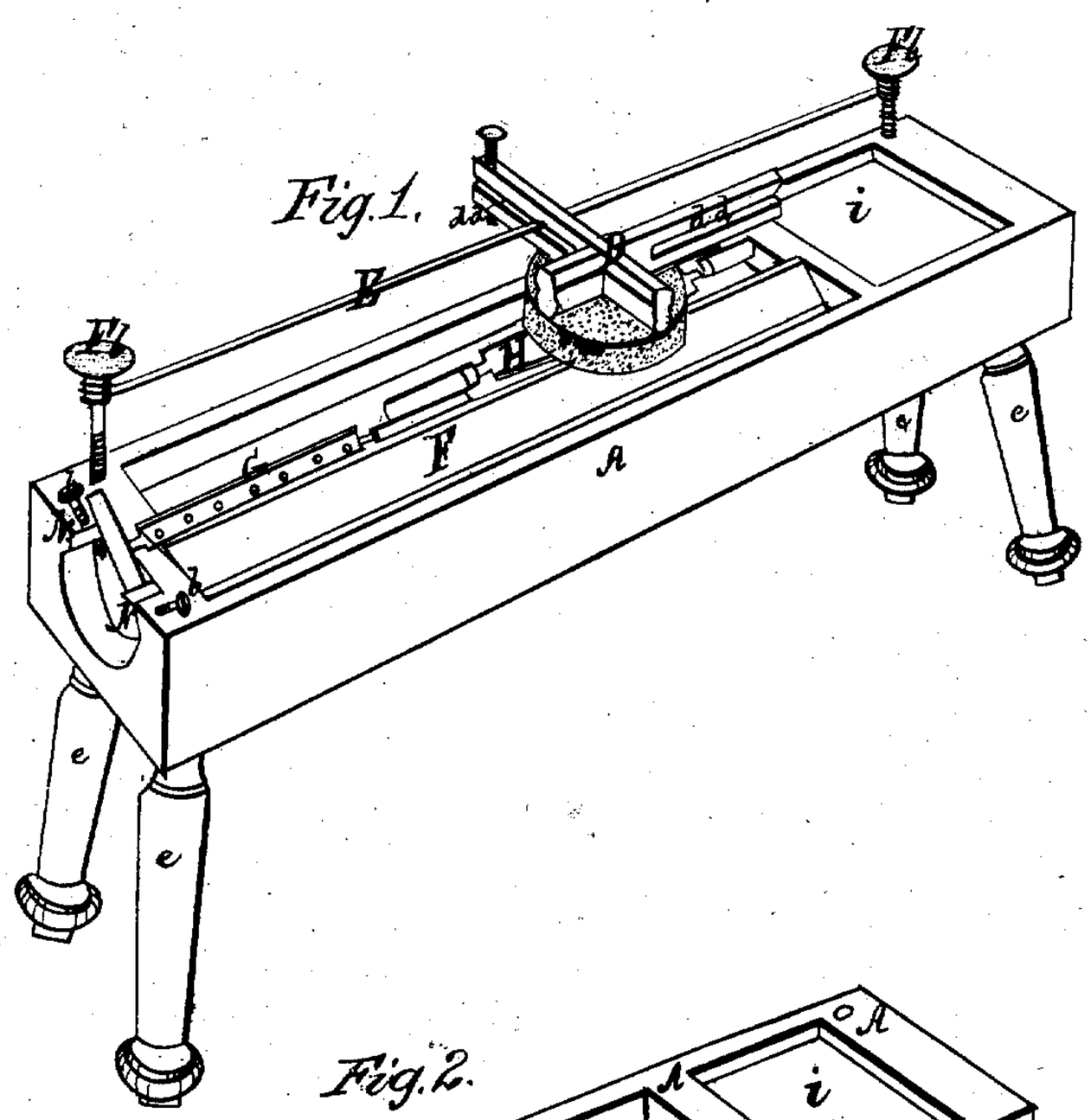

Fig. 2.

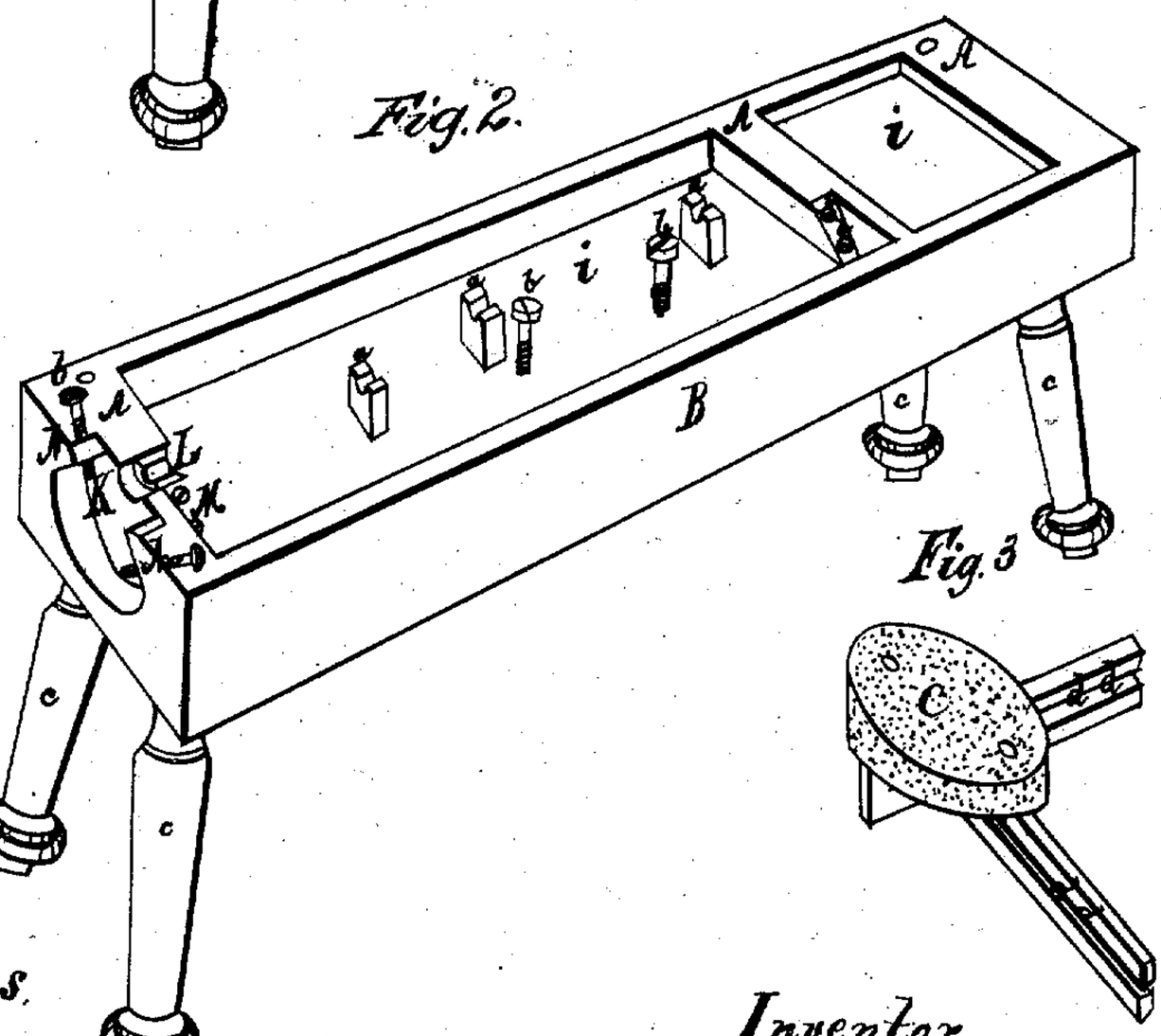

Fig. 3

Witnesses.

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WARREN EGLESTON, OF TROY, NEW YORK.

MACHINE FOR SHARPENING KNIVES FOR THE USE OF TANNERS, CURRIERS, &c.

Specification of Letters Patent No. 1,064, dated January 8, 1839.

To all whom it may concern:

Bt it known that I, the undersigned, WARREN EGLESTON, of the city of Troy, in the county of Rensselaer and State of New York, have invented a new and useful machine, called the "tanner's and currier's sharpening-machine," intended to sharpen currying-knives, flesher-knives, leather-splitting-machine knives, and other knives of similar construction used by tanners and curriers, (it may also be used to sharpen the knives of lath-machines, manufacturers'-shearing-machine knives, planing-machine knives, and other knives of like shape,) of which said machine the following is a specification.

The aforesaid machine is made with a plank or board about five feet long; from two to three inches thick and from twelve to eighteen inches wide, and is elevated upon four legs about two and a half feet in length. This is called the "bench" of the machine. Pieces of wood corresponding in length to the width of the "bench" and about three inches wide and two inches thick are nailed or otherwise fastened across the ends of the "bench;" and another piece of wood of the same dimensions is nailed or otherwise fastened across the bench about fourteen inches from one end and parallel to the others; these are called the "bed pieces" of the machine, and are distinguished as first, second, and third bed pieces, beginning to number from the one farthest removed from the middle bed piece. Upon each edge and extending the whole length of the bench are nailed narrow slips of board; the bench is thus divided into two apartments; the smaller intended to contain water for the purposes of the machine and also the stone hereafter described when not in use; the other, to contain the different parts of the machine. Obtuse angular mortises are cut into the first and second bed pieces opposite to and in the same line with each other. The point or angle of said mortise being about half an inch from the bench; the dimensions of said mortise varying according to the width and nature of the knife intended to be sharpened. Into that side of each of said mortises upon which rests the knife while subject to the process of sharpening, two small screws are inserted; one near the point or angle of the mortise, the other near the upper line of the bed piece as by reference to drawings herewith exhibited will more fully appear. Another screw is inserted nearly opposite to the first aforesaid screws. The back of the knife rests upon this last mentioned screw, the under side of the knife at the same time resting upon the other two. All of these screws may be elevated or depressed to obviate any inequality in the width or thickness of the knife; and also to adapt or gage it to the requisite bevel of the edge; and are called "gage screws."

At the end of the first bed piece, opposite the said angular mortise and at a corresponding point in the third bed piece is inserted at right angles to the plane of the bench, a screw or standard made of iron or other metal, about six inches in length with a thread or screw cut upon it about three inches. About two inches from the top of said post or standard a shoulder is made and a round bar of iron about an inch in diameter with a hole in each end and extending from one to the other is inserted and rests upon said shoulders and upon the ends of said screws projecting above said bar, handles or thumb pieces are screwed or otherwise fastened. These thumb pieces may be removed so as to take off the bar. The aforesaid bar is thus suspended parallel to the bench and may be elevated or depressed by turning the screws, as will more fully appear by reference to the drawings. When thus suspended it is called the "general gage" or "regulator."

A stone is used, called the "rub stone;" being from eight to ten inches in diameter, and from two to four inches thick and may be round or any other suitable shape. Into the under side of said stone are drilled two or more holes, about half through; of any requisite diameter; and thence continued through of a less diameter; thus forming a shoulder to support the head of a bolt or screw, that passes through said holes for the purpose of attaching a handle to the opposite side of said stone. (Refer to drawings for a more full explanation.) The handle attached to said stone is made of two strips or pieces of wood from eighteen to twenty-four inches long; about four inches in width and two inches thick; said pieces of wood, about six inches from the ends are framed together at right angles to each other. Into the longer arms of the handle, grooved of about an inch and a half in width are cut parallel to the face of the stone, and parallel to each other,

and also upon the same plane. This handle is so fastened to the said stone by means of screws or bolts passing through the aforesaid holes as that the four right angles formed by the intersection of the two pieces of wood, rest upon the center of the stone. Thin strips of iron are screwed or otherwise fastened upon the sides or edges of the grooves, called "wearing irons."

One of the arms of the handle to the "rub stone" is inserted upon the regulator by means of the groove, and is there confined by means of a pin or screw inserted into a hole in the end of the arm. The face of the stone intended to act upon the knife rests upon it and is parallel to its bevel. To bring the face of the stone exactly parallel to the edge of the knife, so that its whole plane or surface may act upon the knife, the groove of each arm is inserted upon the bar or regulator so as to make the "regulator" subtend the angle at the center of the stone; one or both of the posts or supporters sustaining the "regulator" are then elevated or depressed till the face of the stone is brought to bear equally upon the bevel of the knife. The stone is then moved alternately at right angles to the edge of the knife or with any other motion as may suit the operator. The length of the grooves being less than the diameter of the stone, so that the stone cannot pass beyond the knife in either direction. The face of the stone is made to wear uniform by alternately using either grooved arm of the handle.

Into the "first bed piece" is cut a cavity of any requisite shape and dimensions forming two acute angular lips or projections at the upper line of said "bed piece," the edges or angles of said lips on projections being about two inches asunder; a screw is inserted into each of these projections passing through the same, which by turning may be elevated or depressed. In the center range between the aforesaid edges or angles and parallel to the regulator a half circular mortise or groove is cut, about an inch and a half wide and of the same depth; in the center of this mortise or groove a post or supporter is inserted with a cavity cut in the top, about an inch wide and of the same depth, to receive and confine the shank of the currying knife; at the length of the blade of the currying knife from the aforesaid post or supporter and in the same parallel another post or supporter is inserted into the bench, of the same dimensions and with a like cavity cut in the end; the base of the cavity in both posts being in the same plane. The currying knife is placed upon these posts or supporters, the cavities receiving the shanks of the same between the handles and the blade; the knife is thus elevated about three inches from the "bench." When placed in a position to receive the action of the "rub stone" that handle of the knife which is at right angles with the blade passes between the aforesaid angular lips or projections, and comes in contact with the point of one or the other of the aforesaid screws that pass through the aforesaid angular projections. The screw is then elevated or depressed so as to adapt the bevel of the knife to the action of the "rub stone." The position and arrangement of the rub stone and regulator are the same as in the process of sharpening the leather spliting machine knife.

In a line parallel to the regulator and at the requisite distance removed therefrom; and also removed from each other the length of the blade of the tanner's flesher; two other posts or supporters are inserted or driven into the bench. These may also be made of iron and are about three inches long, with cavities cut in the top; of such shape and dimensions as the shank or handle of the knife may require; the base of said cavities being in the same plane. In a line, parallel to that of said posts and farther removed from the "regulator," two screws are inserted into the "bench"; so that the outer edge of the flesher; or that subject to the process of sharpening may rest upon them near the corners; these screws are also called gages, and are elevated or depressed so as to adapt the bevel of the knife to the action of the stone of the knife. One of the bevels of this knife being convex and the other concave there must be a sub stone for each, with a face or surface adapted to each bevel; but in other respects the arrangements and position of the sub stone and regulator are the same. The regulator itself always being elevated or depressed to suit the thickness of the stones. The handle of the "sub stone" may be attached to the stone by means of a single bolt passing through the center and then the stone may be made to revolve upon this axis in addition to its other motions.

When other knives than the leather splitting machine knife currying knife and flesher are intended to be sharpened the arrangements for placing and securing the knife in its place may be varied to suit the shape, size and structure of said knife; but the rub stone governed by the regulator, will act uniformly in the same manner upon the edge of the knife.

The "bench" may be increased in width so as to place the regulator in the center of the bed pieces; and the arrangements for the leather splitting machine knife may be placed on one side of the "regulator" and those for the currying knife and flesher may be located upon the opposite side of the same. So also the same arrangements

may be adopted when the machine is intended to be used for the purpose of sharpening other knives. The machine may also be made with only arrangements for the purpose of sharpening any one kind or species of knives above named.

The several parts of the aforesaid machine are delineated in drawings herewith transmitted and marked Figs. 1, 2, 3, and the several parts are also pointed out in said drawings and explained in a schedule hereto annexed marked A.

Figure 1, represents the machine with a leather splitting machine knife placed in the angular mortises ready to be operated upon by the rub stone, a currying knife and flesher in the same position also the rubstone placed as when intended to act upon any of the aforesaid knives or any other knife. Fig. 2 represents the machine without any species of knives being located as also without the regulator. Fig. 3, represents the rub stone with the handles attached in an inverted order. A represents the machine ready to operate upon a knife. B represents without the rubstone, regulator or any knife. C represents that face of the rubstone that acts upon the knife. D represents the rubstone ready to act upon a knife. E represents the regulator. F a splitting machine knife placed in the angular mortises as described in the above specification. G represents a currying knife placed ready to be acted upon by the rub stone. H represents a flesher located in the manner and for the purposes above described. I the larger apartment of the bench. J the lesser apartment. K represents a cavity cut in the bed piece number one as described. L circular mortise or groove. M angular mortise. N angular lips or projections. A^a bed pieces. F^f, posts, or standards supporting the regulator. *a* the posts or supporters for the currying knife and flesher. *b* gage screws. *c* legs of bench. *e* holes drilled in rub stone through which a screw or bolt passes to attach the handle. *d* groove of the arm of the handle.

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

The mode herein described of sharpening knives, that is to say, the combination of the bench with the regulator and rub-stone, the whole being constructed and arranged in the manner substantially as herein described.

In testimony whereof I, the said WARREN EGLESTON have hereto subscribed my name in the presence of the witnesses whose names are hereto subscribed on the 29th day of December, one thousand eight hundred and thirty eight.

WARREN EGLESTON.

Witnesses:
R. THOMAS,
JOHN LADUE.