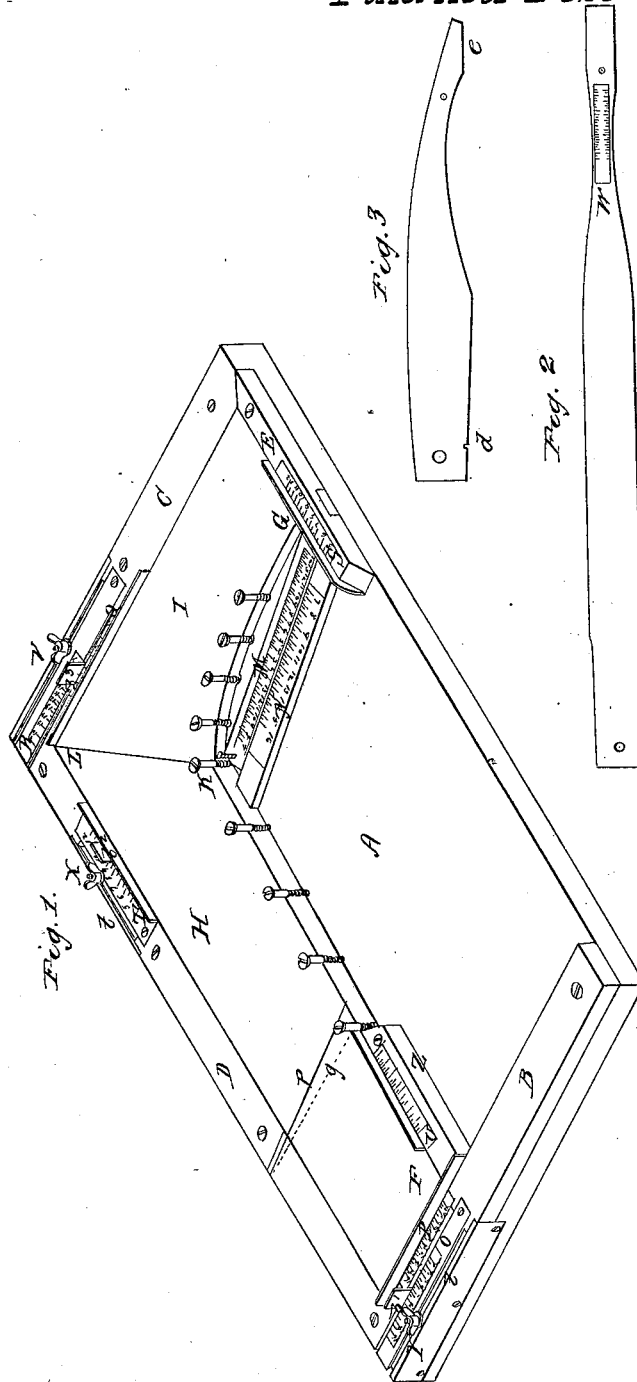


J.A. & A.F. Jones,

Shoemakers' Tool,

N^o 5467.

Patented Feb. 14, 1848.



UNITED STATES PATENT OFFICE.

A. F. JONES AND J. A. JONES, OF LEXINGTON, KENTUCKY.

CUTTING BOOTS.

Specification of Letters Patent No. 5,467, dated March 14, 1848.

To all whom it may concern:

Be it known that we, ALFRED F. JONES and JOHN A. JONES, of the city of Lexington, in the county of Fayette and State of Kentucky, have made a new and Improved Machine for Cutting Boots; and we do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings.

Figure 1, A, is a board one inch thick or any given thickness, twenty five inches long and fifteen inches broad. On its marginal surface are four strips of plank three fourths of an inch in thickness, marked in drawing B, C, D, and E. B and C is one inch and three fourths of an inch broad, and three fourths of an inch thick and fifteen inches long. D, is one inch and a half broad, three fourths of an inch thick and twenty five inches long. E is three fourths of an inch broad and three fourths of an inch thick and nine inches long; these strips are mitered at the corners of the board A. From F, K, G, is a line drawn in the form of a boot front when crimped, in which line are nine screws two and a half inches long; one inch is screwed in the board A, leaving one inch and a half projecting above.

H and I, are two pieces of plank $\frac{3}{4}$ of an inch thick mitered at K, L, and sufficiently broad and in form so as to fit closely to the nine screws on the line from F, K, G, and against the strips marked B, D, and C. The two pieces of plank H and I, are to be taken out or put in as the occasion may require, they are to be cut on and when worn out, they are to be replaced.

M, is a slide with figures on it (made of wood or other substance) and slides parallel with N, to give any given length of a boot. N, is a strip of plank made fast to the board A, with figures on it and governs the slide M, for if a boot be cut to a thirteen inch heel and to work on a nine size last, run out the slide M, till the notch *i*, is at thirteen on N, cut the toe of the boot front off at nine on M, and the front will be the correct length to work on a nine last; or if a boot be cut to eleven inch heel and to work on a six size last, run out the slide M till the notch *i*, is at eleven on N, cut the toe of the boot front off, at six on M, and the front will be the correct length to work on a six last; and so on through all various sizes.

At O, P, Q, R, S, T, U, and W, is a scale

of calculation to cut accurately, any size boot that is worn.

The scales O, P, Q, and R, each is two inches and one fifteenth of an inch in length, divided into nine parts, and each part is subdivided into four equal parts. Each scale has figures on it running numerically from 7 to 16: from 7 to 9 and from 13 to 16 inclusive are equal parts being one fourth of an inch in length; from 9 to 10 and from 12 to 13 each is two ninths of an inch in length and from 10 to 11 is one fifth of an inch.

The scales P and R are for cutting boot backs and the scales O, and Q are for cutting boot fronts.

S, T, and U, of each scale is two inches and six ninths of an inch long; each is divided into seven parts and each part is subdivided into four equal parts. Each scale having figures on it running from 5, to 12, numerically; from 5 to 6 is fifteen thirty seconds ($\frac{1}{2}$) of an inch long, each other part gradually decreasing from 6 to 12 inclusive, from 11 to 12 is one third ($\frac{1}{3}$) of an inch long.

The scale W, is one inch and eleven sixteenths ($1\frac{1}{4}$) of an inch in length, divided into seven parts, and each part is subdivided into four equal parts, having figures on it running numerically from 5 to 12: from 5 to 8 inclusive, each part is one fourth ($\frac{1}{4}$) of an inch in length, and each other part gradually decreasing from 8 to 12, from 11 to 12 is one fifth ($\frac{1}{5}$) of an inch in length.

The scale on M, is seven inches long divided into twenty one equal parts, each part being one third ($\frac{1}{3}$) of an inch in length, and each part is divided into four equal parts; having figures on it running numerically from 7 to 13, and from 1 to 15. The scale on N is four and a half inches long, divided into nine equal parts, and each part into four equal parts, having figures on it running numerically from 7 to 16.

Z is a strip of plank one inch and one fourth broad, three fourths of an inch thick, and five inches long, on which is the scale U.

There are three indicators b^1 , b^2 , b^3 , all alike made, and slide in grooves. The grooves are formed by leaving a space on each side of a strip of sheet iron, on which is a scale. An indicator b^3 is made of sheet iron or other metal, not more than an eighth of an inch thick three fourths of an inch broad, and one inch and three fourths of an inch long, bent at right angles; from the end of the horizontal portion arises a male screw,

on which is worked a regulator nut, the outer horizontal portion of the indicator passes under the metallic plate *z*, which is on the strip C. The perpendicular portion of the indicator b^3 , and the male screw *b*, slide easily in grooves; one groove on each side of the scale R.

The nut being attached to the male screw *b*, by screwing the nut the indicator becomes fast, and by unscrewing the nut the indicator may be moved forward or backward.

The draft Fig. 2, is made of sheet iron or other substance not more than an eighth of an inch thick, twenty five inches and three eighths of an inch long, and across the widest part of it, is one inch and seven eighths of an inch broad, and made in proportion to, and in form of Fig. 2.

Operation.—To cut a boot measuring thirteen inch heel, nine and five eighths in-step and will work on a nine size last: Place a boot front that is crimped, on H, I, the crimped edge against the nine screws on the line F, K, G, place the indicator b^2 , to $9\frac{5}{8}$ scale T, and made secure by the nut X. Place the form Fig. 3, notch *d* fitting so as to receive into it indicator b^2 , with notch *d* facing toward letter T the smaller end of form Fig. 3, on the face *e* being placed at $9\frac{5}{8}$ on scale T, cut the leather along the outer margin of form Fig. 3 (which would be a line from $9\frac{5}{8}$ on scale T, to $9\frac{5}{8}$ on scale S.) Place the indicators b^1 , and b^3 , to scale O¹³ and scale Q¹³. The nuts Y and *b* having secured the indicators b^1 , and b^3 , place the draft Fig. 2 against the inner edge of the indicators b^1 , and b^3 , then place $9\frac{5}{8}$ on scale W, to the lower extremity of the boot front already cut, cut the leather along the outer margin of the draft Fig. 2 (which would be a line from scale O¹³ to scale Q¹³). Run out the slide M and place the notch *i* (which is between 10 and 11 on M) to 13 on N. Cut the toe of the boot front off at 9 on M, which completes the front.

Cutting the back.—The boot back when double has one straight line, which place against the screws on the line from K, to F, the surface of the back lying on H. Cut the lower extremity of the back which is toward

scale b^1 , to an angle of about five degrees with *p* as in dotted line *g*, *h*, then slide up the boot back on the board H until the face last cut shall correspond or be opposite to $9\frac{5}{8}$ on scale U. Now place the indicators b^1 , and b^3 , to 13 on scale P, and 13 on scale R, they being made secure by nuts *y*, and *b*.

Place the draft Fig. 2 against the indicators b^1 , and b^3 , and $9\frac{5}{8}$ on scale W, to the lower extremity of boot back which is toward scales O and P, then cut along the outer margin of draft, (which would be a line from 13 on scale P, to 13 on scale R,) and completes the back.

The above is one example of upward of two hundred and thirty different sized boots that can be cut by this machine, and with great facility.

The form Fig. 3, is made of sheet iron or other substance, not more than an eighth of an inch thick, fifteen inches long and in the widest part of it, is two inches and one quarter of an inch broad, has a notch in it at *d*, one inch and an eighth of an inch from the corner, and made in proportion to, and in form of Fig. 3.

What we claim as our invention and desire to secure by Letters Patent is—

The manner of forming and cutting "boot uppers" of the proper shape to correspond with the various measures of the foot, by means of the board A, having a line F, K, G, upon it, corresponding to the crimped front, indicated by the series of screws (or by raised points or a ledge,) combined with the series of graduated scales M, N, O, P, Q, R, S, T, and U, and the indicators b^1 , b^2 , b^3 located on various parts of the board in the manner herein set forth; which combination and arrangement of scales, line, and indicators, is applied to the formation of the "boot uppers" by means of the scale draft Fig. 2, and the form Fig. 3, substantially in the manner herein set forth.

ALFRED F. JONES.
JOHN A. JONES.

Witnesses:

R. CAMPBELL,
L. D. CHILD,