

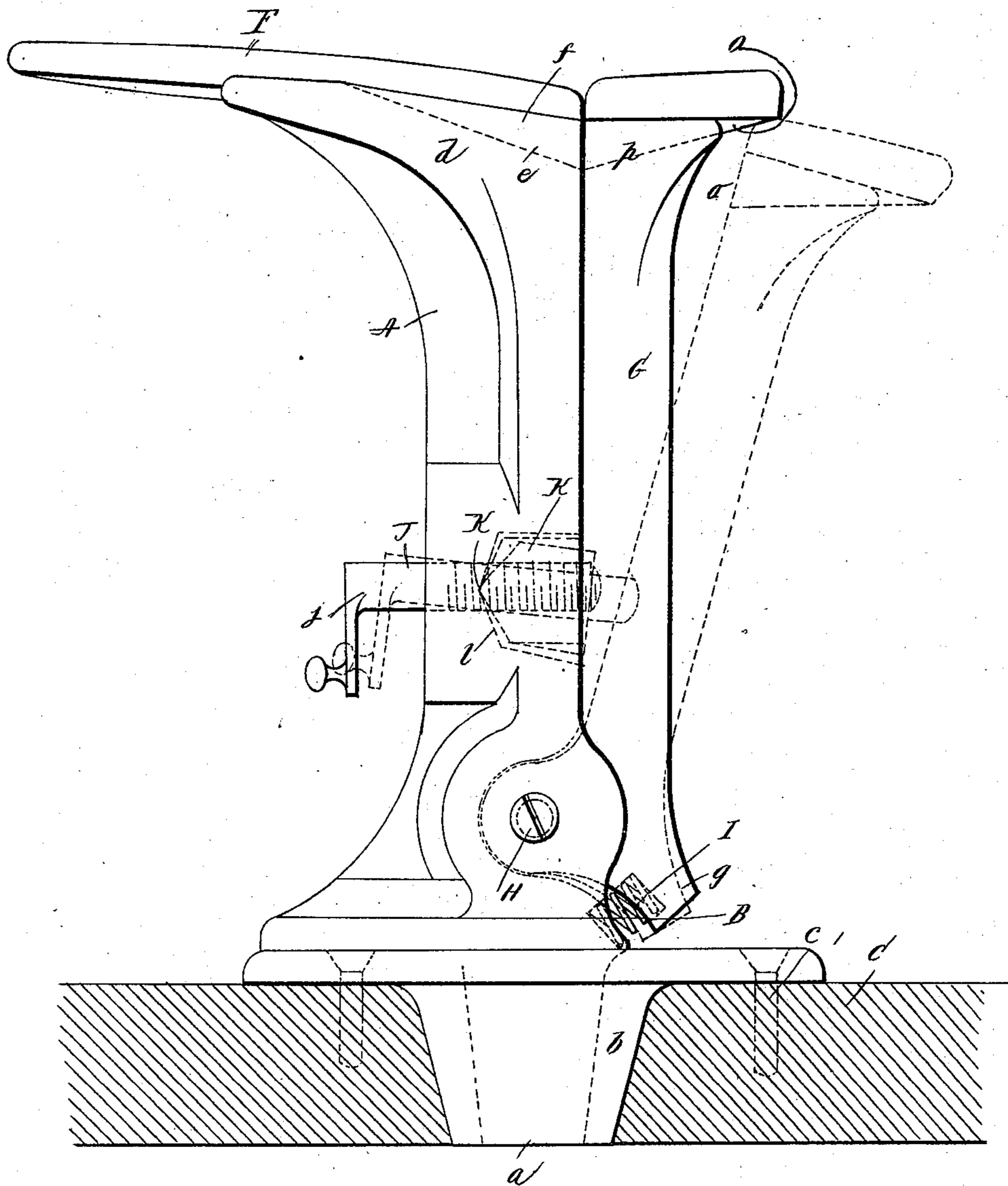
No. 658,191.

Patented Sept. 18, 1900.

J. ROBINSON & G. E. GRAVES.
WORK SUPPORT.

(Application filed Sept. 29, 1899.)

(No Model.)



WITNESSES

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UNITED STATES PATENT OFFICE.

JOHN ROBINSON, OF GATESHEAD, AND GEORGE EDWARD GRAVES, OF
NEWCASTLE-UPON-TYNE, ENGLAND.

WORK-SUPPORT.

SPECIFICATION forming part of Letters Patent No. 658,191, dated September 18, 1900.

Application filed September 29, 1899. Serial No. 732,047. (No model.)

To all whom it may concern:

Be it known that we, JOHN ROBINSON, residing at Lowfell, Gateshead-upon-Tyne, in the county of Durham, and GEORGE EDWARD GRAVES, residing at Newcastle-upon-Tyne, England, subjects of the Queen of Great Britain, have invented certain new and useful Improvements in Work-Supports, of which the following is a full and complete specification, such as will enable those skilled in the art to which it appertains to make and use the same.

This invention relates to lasts; and it has for its object to provide a simple and improved last which will be especially adapted for the convenient repairing of boots and shoes and which will enable the operator to fit all sizes with the one device, for which latter purpose our improved last device is adjustable in various ways, as will be hereinafter fully set forth.

The invention is fully disclosed in the following specification, of which the accompanying drawing forms a part, and which is a side view of our improved last.

In the drawing forming part of this specification the separate parts of our improvement are designated by letters of reference, and in said drawing, A designates an upright which is adapted to revolve, it being provided for the latter purpose with a bottom stud *a*, preferably conical, fitting a corresponding seat *b* in a bed-plate B, which is adapted to be secured to a bench or table C by means of screws, as shown at *c*.

At the top of the upright A is formed a small last, as at *d*, without a heel-piece, and said top portion *d* is provided with a dovetail groove on an incline, as shown at *e*, to provide for the attachment of an extension foot F, which is provided with a corresponding dovetail ridge or projection *f*, whereby the operator may substitute different sizes of the feet F, as desired or required.

G designates an adjustable rear upright, which is hinged at its lower end to the upright A by means of a transverse pin or bolt H, as shown, this upright G being retained in normal position with relation to the upright A by means of a cushion or spring I, inserted between the base of the upright A and

the toe *g*, formed below the pivot of the upright G.

The uprights A and G are preferably recessed to accommodate the ends of the spring and retain the same in position, as shown. The spring I operates to force the upright G against the end of an adjusting-screw J, which operates in a nut K, fixed to the upright G and having a conical or pointed front end *k*, operating in a similar recess *l* in the rear of the upright A, whereby a rocking bearing is formed for said nut. The screw J projects through a vertically-extended recess *m* in the front portion of the upright A, and it is provided with an operating crank-handle, as shown at *j*.

The upright G is provided at its top with a forwardly-inclined dovetail groove *n*, which is adapted to receive a corresponding dovetail ridge or projection *o* on a larger or extension heel-piece O. The top end *p* of the upright G forms in itself a small heel-piece.

The operation and advantages of our invention will be readily understood by those skilled in the art to which it appertains. The device is adapted to enable the convenient repairing of boots and shoes of different sizes by means of the one device and by simply changing the detachable extension foot and heel pieces. It will be noted that it is also of such a construction that the operator can cut or pare the leather of the sole to the contour of the boot or shoe with facility and convenience, the last being revoluble as well as adjustable. Normally the last can be used with simply the foot and heel pieces *d* and *p*, respectively, upon the uprights for small shoes, when by adjusting the extension foot-pieces and heel-pieces F and O the last is adapted to take larger-sized boots and shoes. The adaptability of the last is of course further increased by means of the adjusting-screw mechanism by which the rear upright G may be forced outwardly from the upright A against the tension of the spring I. Inasmuch as the heel-upright G is always retained in position with pressure on the end of the screw J by means of the spring I, the operator can at all times adjust the said upright G to adapt the last for the various sizes of boots and shoes which are to be repaired. The con-

venient arrangement and adjustment of our improved last, by spreading the foot and heel pieces inside the boot or shoe, enables its use as conveniently and effectively as would
5 be the case with a whole or solid last, and it can be more conveniently extracted from boots or shoes than would be the case with a solid last by reason of the fact that the simple releasing of the pressure by operation of
10 the screw J will bring the heel and foot pieces together, and the boot or shoe can then be lifted from the last without the necessity for the use of pincers or other extracting devices.

15 Having fully described our invention, we claim as new and desire to secure by Letters Patent—

20 An improved work-support, comprising a main upright carrying the foot-piece, a supplemental upright pivotally connected there-

with and carrying a heel-piece, a cushion or spring operating to normally force said uprights together, a nut fixed to said supplemental upright and having a rocking bearing
25 in said main upright, and an adjusting-screw working through said nut and bearing against said supplemental upright, and provided with an operating-crank, whereby said main and supplemental uprights may be relatively separated, substantially as shown and de-
30 scribed.

In testimony that we claim the foregoing as our invention we have signed our names, in presence of the subscribing witnesses, this 20th day of September, 1899.

JOHN ROBINSON.

GEORGE EDWARD GRAVES.

Witnesses:

H. NIXON,

H. IRWIN.