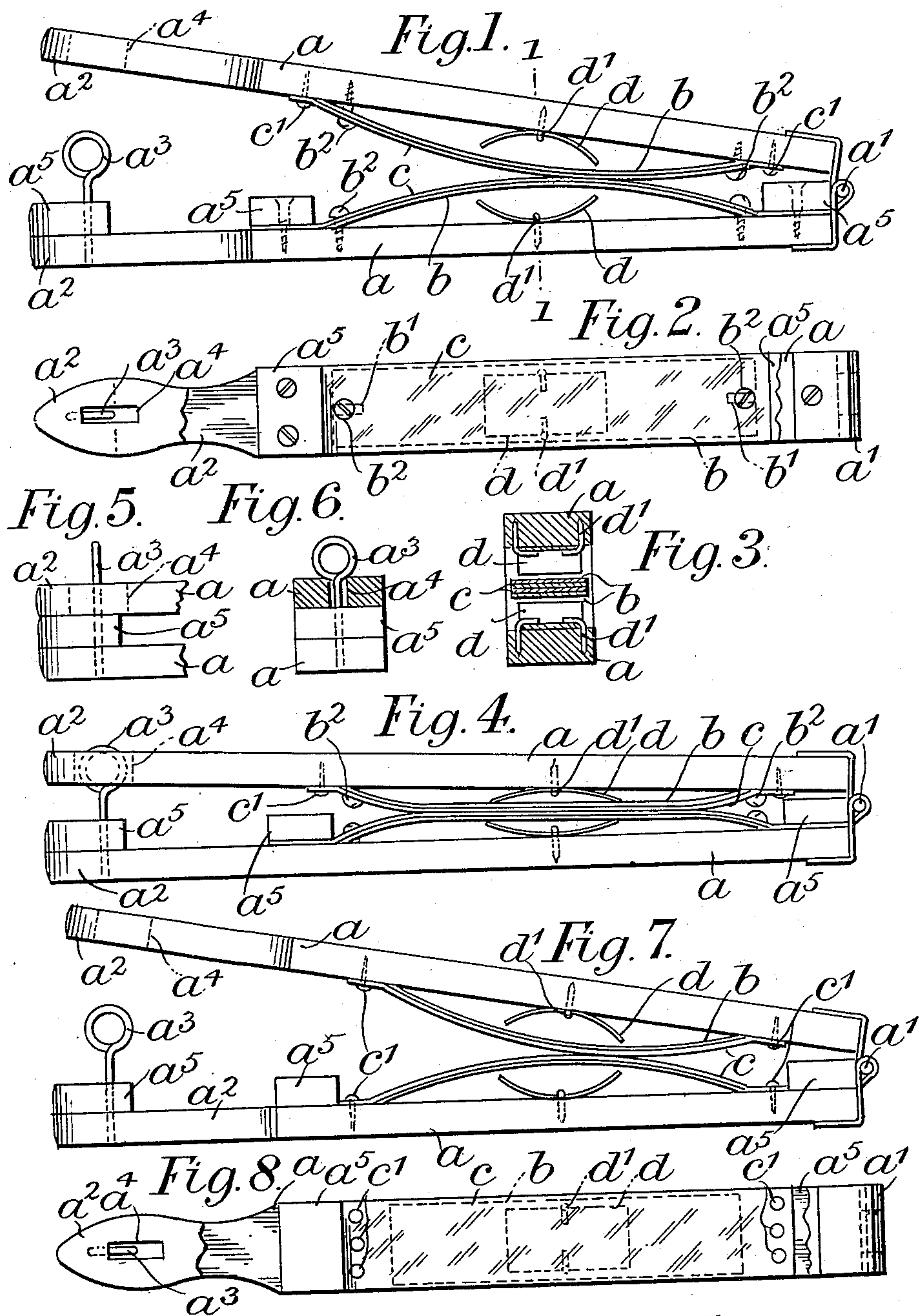


C. HEYWOOD.
MEANS FOR CLEANING KNIVES.

APPLICATION FILED MAY 26, 1902.

NO MODEL.

2 SHEETS—SHEET 1.



Witnesses:

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W. Holmes

Inventor:

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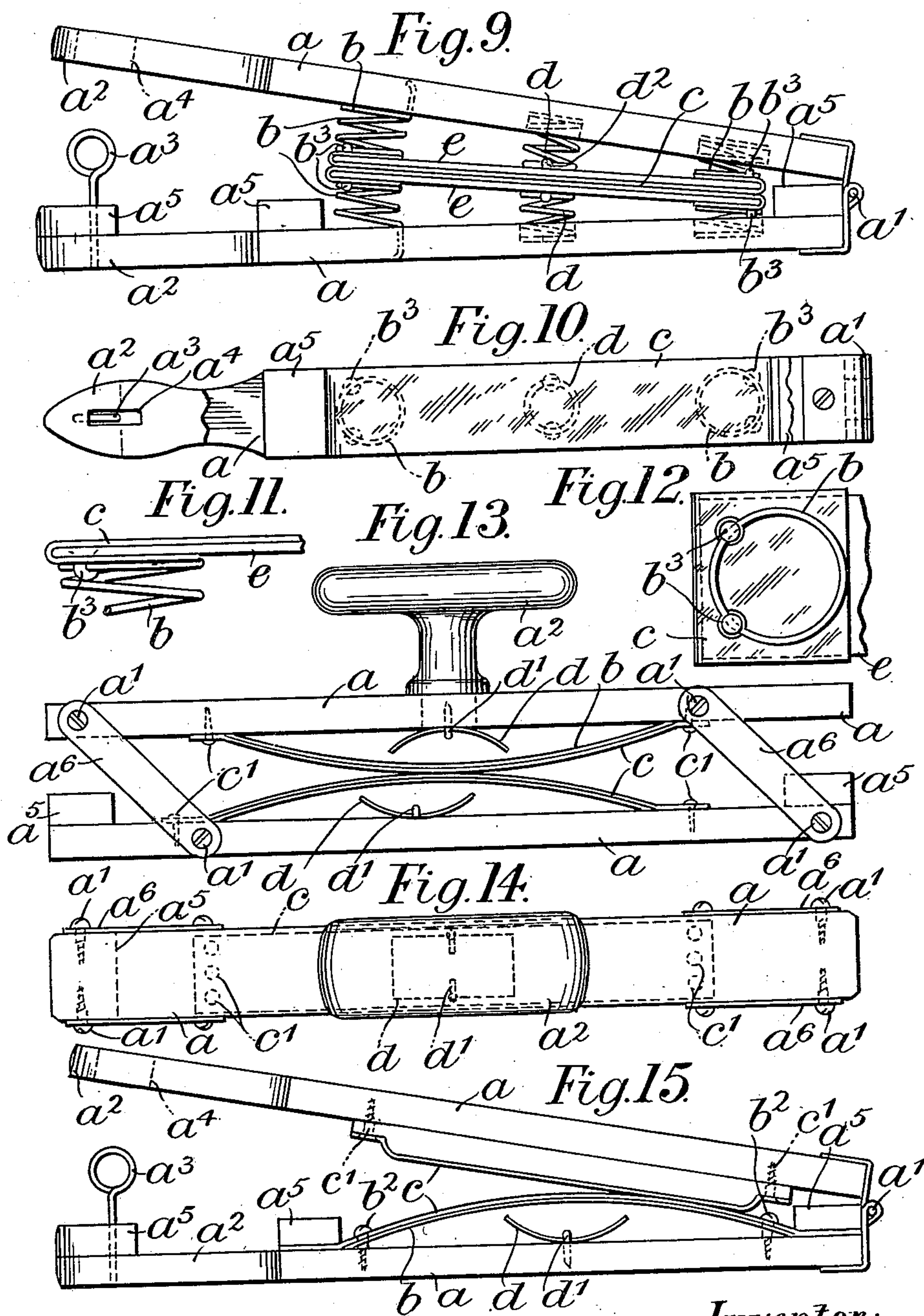
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C. H. White

L. Holmes

Inventor:

Leet Hayward

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attorneys

UNITED STATES PATENT OFFICE.

CECIL HEYWOOD, OF MAIDA VALE, LONDON, ENGLAND.

MEANS FOR CLEANING KNIVES.

SPECIFICATION forming part of Letters Patent No. 723,463, dated March 24, 1903.

Application filed May 26, 1902. Serial No. 109,114. (No model.)

To all whom it may concern:

Be it known that I, CECIL HEYWOOD, gentleman, a subject of the King of Great Britain, residing at 69 Morshead Mansions, Maida Vale, in the county of London, England, have invented certain new and useful Improvements in Means for Cleaning Knives or the Like, of which the following is a specification, reference being had to the drawings hereunto annexed and to the letters marked thereon.

The invention relates to improvements in means for cleaning knives or the like.

Various kinds of knife-cleaning machines have from time to time been brought before the public; but those that have possessed the requisite qualities to render them efficient have been too costly to come into general use, while the cheaper kinds have been more or less expensive, added to which they, or most of them, have failed to give satisfactory results, the consequence being that at the present time the old-fashioned and primitive knife-board is still in general use.

Now the object of the present invention is to obtain a simple device which will be extremely portable, occupy little space, and clean both sides of the knife at once and that in a highly-efficient manner, and yet cost little, if any, more than the common knife-board.

In the accompanying drawings, Figure 1 is a side elevation of an instrument constructed according to the present invention and showing the same in its open position ready to receive a knife. Fig. 2 is a plan thereof, but with the upper lever or arm broken away. Fig. 3 is a transverse section taken on the line 1 1 of Fig. 1. Fig. 4 is a similar view to Fig. 1, but showing the instrument nearly closed. Fig. 5 is a side elevation of part of the instrument, showing the same completely closed and thus fastened. Fig. 6 is an end view thereof, partly in section. Fig. 7 is a similar view to Fig. 1, but illustrating a slight modification in the means employed for retaining the main springs in place. Fig. 8 is a plan thereof, but with the upper arm or lever broken away. Fig. 9 is a similar view to Fig. 1, but illustrating a modification in the means for obtaining a plane rubbing-surface. Fig. 10 is a plan thereof with the upper arm or lever broken away. Fig. 11 is a side view of part of one

of the canvas-covered plates separately. Fig. 12 is an under side view thereof. Fig. 13 is a similar view to Fig. 1, illustrating a further modification. Fig. 14 is a plan thereof; and Fig. 15 is a similar view to Fig. 1, illustrating a still further modification.

In the several figures, in which like parts are indicated by similar letters of reference, Figs. 11 and 12 are drawn to an increased scale with respect to the other figures of the drawings.

Referring to Figs. 1 to 6, *a* represents the arms or levers or platforms constituting the body of the instrument, and these arms or levers are at one end thereof pivotally connected together by a hinge-joint *a'*, so as to be capable of closing or folding one upon the other, or nearly so, as shown at Figs. 4, 5, and 6. At the other end the arms or levers *a* are fashioned into handles *a''*, by the aid of which they may be manipulated, and they are furnished with a fastening device, consisting of a revoluble eye *a'''*, carried by one part, which is adapted to be passed through a co-acting slot *a''''* in the other part and then turned into a position at right angles with the slot, as shown at Figs. 5 and 6, by the aid of which the arms or levers *a* may be retained in their closed position when required, or any other suitable fastening device may be substituted therefor. One of the arms or levers *a* is furnished upon its inner face with several projections, stops, or distance-pieces which in the closed position of the device come against the inner face of the other or opposite arm or lever and insure a given space being preserved between said arms or levers *a*, as shown more particularly at Figs. 5 and 6, and one of said stops is arranged at the inner ends of the arms or levers *a* adjacent to the hinge-joint *a'*, and the others are located, respectively, at and near to the outer end thereof, so as to leave a considerable space between the two stops *a'''* nearest to the inner end or hinge *a'*. Within this space is fitted a bowed spring *b*, of ribbon or plate steel and of a width equal to that of the lever or arm *a*, or thereabout, and the ends of this spring *b* are provided with slots *b'*, and coacting headed screws *b''* are passed through the slots and screwed into the arm or lever *a*, by which means the spring *b* is controlled and

guided in its movements, or plain holes might be substituted for the slots b' . Over the spring b and longitudinally thereof is strained a strip c of canvas webbing or other suitable material of about the same dimensions as the spring b and which at its ends is fastened to the arm or lever a by nipping it beneath the adjacent stops a^5 . The spring b , arranged in the manner above described, naturally assumes the form of an arc at its ends, springing from the arm or lever a , and thus maintains the canvas strip c in the required strained condition. Within the radius of the arc of the main spring b and arranged centrally with relation to the length of said main spring, but in an inverted position, is a supplemental bowed spring d , which is formed to an arc of a smaller radius than the main spring b and is at its center fastened to the arm or lever a by means of clips d' , or it might be otherwise fastened, so as to leave its ends free to act upon the main spring b at the times desired. The other or opposite arm or lever a is provided with a similar arrangement of springs b and d and canvas or like covering c , which latter in this case is fastened by nails or screws c' , and thus when the two arms or levers a are forced together by means of the handles a^2 the canvas-covered main springs b will be compressed one against the other, as shown at Fig. 4, and aided by the supplemental springs d will be caused to assume a right line, while the supplemental springs d will at the same time reinforce the main springs b and impart thereto and to the rubbing-surface c the necessary rigidity to perform the required work; but the supplemental springs d may for the sake of cheapness be dispensed with, if desired, although the action of the device will not be so efficient.

In order to use the device, the arms or levers a are opened and the canvas or like rubbing-surface c is coated with brick-dust, emery-powder, or the like, and the blade of the knife to be cleaned, which is held in one hand, is inserted between the canvas or other rubbing-surfaces c , and the handles a^2 of the arms or levers a , which are held in the other hand, are forced together until the required pressure is attained, and the knife-blade is moved several times to and fro, when it will be efficiently cleaned upon both sides and highly polished, while by reason of the simple manipulation required a large number of knives may be cleaned in a comparatively short period of time.

In the example given at Figs. 7 and 8 the device is identical with that hereinbefore shown and described, except that instead of the main spring b being slotted at its ends and secured by a guide stud or screw b^2 and the canvas or like strip c fastened beneath the stops a^5 said canvas strip c is at its ends fastened to the lever or arm a by screws or nails c' and for the sake of cheapness consti-

tutes the sole means of controlling and guiding the main spring b .

In the example given at Figs. 9 to 12 the bowed springs are dispensed with and the canvas or like strips c are carried by approximately rigid planes e , while said planes are supported by helical springs b d , and in order to impart a convexity rather than a concavity to the planes e the center springs d are formed stronger, so as to afford a greater resistance than the end springs b . The springs b and d are fastened to the planes e by means of studs or rivets b^3 d^2 , and the ends of the canvas strips c are passed around the ends of the planes e and secured by the springs b , or they might be otherwise fastened in any convenient manner.

In the example given at Figs. 13 and 14 the two parts a , constituting the body of the device, are connected together at both sides thereof by means of links or levers a^6 , pivotally connected with the two parts of the body a at a' , so as to produce a kind of parallel motion, while the upper part of the body a is provided with a knob or handle a^2 , so that by the aid of simple pressure applied thereto the one part may be forced toward the other part in the required manner. In other respects the device is similar in construction to that hereinbefore shown and described with respect to Figs. 1 to 6, except that the means employed for fastening the spring b and canvas strips c are similar to those shown and described with respect to Figs. 7 and 8.

In the example given at Fig. 15 the device is identical with that hereinbefore shown and described with respect to Figs. 1 to 6, except that the set of springs b and d upon the upper arm or lever a is dispensed with and the strip of canvas or the like c is fastened directly upon the inner face of said arm or lever, and it will be obvious that this peculiar construction might be employed in connection with any of the arrangements shown and described with respect to the other figures of the drawings, although it is probably inferior to all of the arrangements shown and described.

It will be obvious that the construction and arrangement of the various parts of the device may be otherwise modified without departing from the spirit of the invention.

By the means hereinbefore described a simple and inexpensive knife-cleaning device is obtained which is much more efficient and portable than the old-fashioned knife-board and equally efficient as some of the more costly contrivances hereinbefore referred to.

Having now particularly described and ascertained the nature of the said invention and in what manner the same is to be performed, I declare that what I claim is—

1. In a knife-cleaning device a body formed of two parts pivotally connected at one end and adapted to be moved apart and forced together by hand, a single bowed plate-spring

by its ends fixed upon each of the opposite
faces of said parts longitudinally thereof and
coextensive therewith in length and width in
such manner that the arcs of said springs are
5 opposed to one another and when pressed to-
gether become flattened into a right line and
strips of flexible material covering the meet-
ing faces of said springs substantially as here-
in shown and described and for the purpose
10 stated.

2. In a knife-cleaning device a body formed
of two parts pivotally connected at one end
and adapted to be moved apart and forced to-
gether by hand, a single bowed plate-spring
15 by its ends fixed upon each of the opposite
faces of said parts longitudinally thereof and

coextensive therewith in length and width in
such manner that the arcs of said springs are
opposed to one another and when pressed to-
gether become flattened into a right line, 20
strips of flexible material covering the meet-
ing faces of said springs and supplemental
but inverted bowed springs of a smaller ra-
dius than the main springs carried by the two
parts of said body within the arcs of the main 25
springs and acting to reinforce the same sub-
stantially as herein shown and described and
for the purpose stated.

CECIL HEYWOOD.

Witnesses:

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C. H. WHITE.