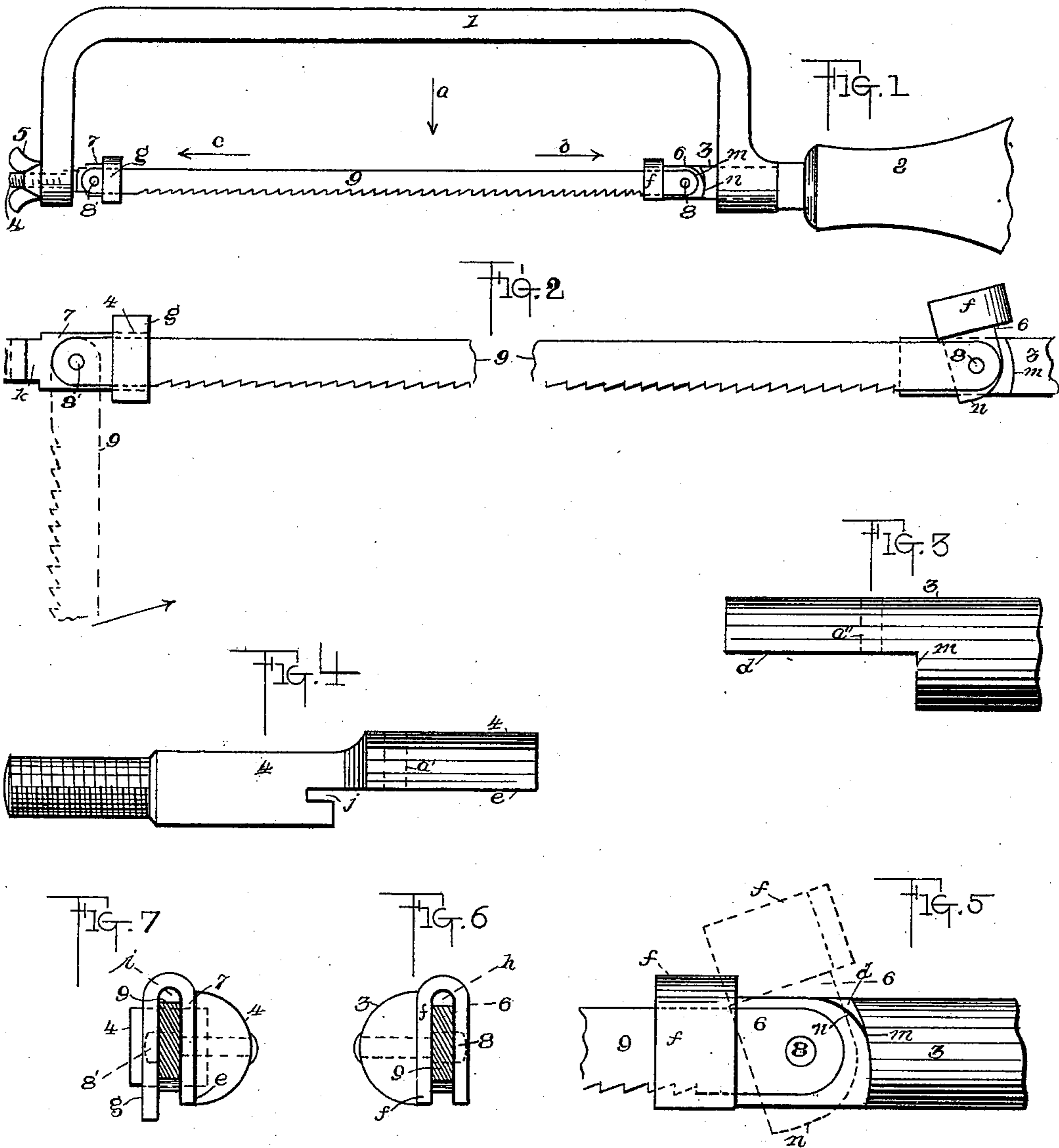


(No Model.)

C. LUKE.
HACK SAW FRAME.

No. 541,442.

Patented June 18, 1895.



WITNESSES:

D. A. Phillips
J. M. Range.

INVENTOR

Charles Luke.
BY *Geo. D. Phillips.*

HIS ATTORNEY.

UNITED STATES PATENT OFFICE.

CHARLES LUKE, OF MILFORD, CONNECTICUT, ASSIGNOR TO GEORGE T. BRISTOL AND GEORGE L. ESTES, OF ROCHESTER, NEW YORK.

HACK-SAW FRAME.

SPECIFICATION forming part of Letters Patent No. 541,442, dated June 18, 1895.

Application filed October 10, 1894. Serial No. 525,456. (No model.)

To all whom it may concern:

Be it known that I, CHARLES LUKE, a citizen of the United States, and a resident of Milford, in the county of New Haven and State of Connecticut, have invented certain new and useful Improvements in Hack-Saw Frames, of which the following is a specification.

My invention relates to an improvement in hack saw frames and particularly to the mechanism for attaching and maintaining the saw blade thereon, and it is readily adapted to any style or form of frame.

To enable others to fully understand my invention reference is had to the accompanying drawings, in which—

Figure 1 represents a side elevation of a saw-frame and saw attached thereto by my improved clip-fastenings, the one on the forward or adjustable spindle being stationary and the one on the handle-spindle arranged to swing on a pivotal support to admit the saw-blade; and Fig. 2 is a detail broken side elevation of the saw and the two end spindles to which the same is supported on suitable pins for that purpose, a broken dotted section of a saw depending from the pin on the movable spindle, it being the first position it will assume in attaching it to the frame, showing, also, the rear clip raised to attach the opposite end of the saw-blade to the stationary spindle. Fig. 3 is an enlarged broken detail view of the handle or stationary spindle, looking in the direction of arrow *a*, Fig. 1. Fig. 4 is an enlarged detail view of the movable spindle, looking in the direction of arrow *a*, Fig. 1. Fig. 5 is an enlarged broken detail view of the stationary-spindle movable clip, shown in a dotted raised position and also in full lines, embracing a section of a saw-blade. Fig. 6 is a detail end view of the swinging clip and spindle supporting the same and a sectional view of a saw-blade locked to the spindle, looking in the direction of arrow *b*, Fig. 1. Fig. 7 is a detail end view of the movable spindle, the stationary saw-holding clip mounted thereon, and a sectional view of a saw-blade mounted on said spindle, looking in the direction of arrow *c*, Fig. 1.

Its construction and operation are as follows:

1 represents an ordinary hack-saw frame; 2, the handle mounted on the outer projecting end of the spindle 3.

4 is a movable spindle located, as usual, in the forward part of the frame and having a threaded end carrying the tightening thumb nut 5. The ends of the spindles 3 and 4, Figs. 3 and 4, are cut away so as to leave the floors *d. e.* The clips 6 and 7 are each provided with the U shape ends *f. and g.* forming the slots *h. and i.* to embrace the saw blade, as shown at Figs. 6 and 7. The base pieces of such clips rest on the floors *d. and e.* of the frame spindles 3 and 4. The clip attached to spindle 4 is preferably rigid or immovable; while the clip on the spindle 3 is arranged to swing on the reduced portion or shank of the saw-supporting pin 8, such shank extending through the spindle 3 and the projecting end riveted thereto. The pin 8' of the spindle 4 is similarly constructed but is riveted firmly to the clip, so as to prevent its turning. To further assist in holding the said clip 7 the kerf *j* is formed in the spindle 4, Fig. 4, to admit the tongue *k*, Fig. 2, of the clip. The shoulder *m* of the spindle 3 is slightly curved, see also Fig. 5, against which the end *n* of the clip 6 may be cammed when said clip is in a horizontal position, as shown in Figs. 1 and 5.

To attach a saw to the frame the clip 6 is first tilted back, as shown at Fig. 2, or by the dotted position Fig. 5, and the forward spindle 4 loosened by means of its nut 5, and the saw 9, by means of the hole in its end, is hung pendent from the pin 8', see dotted position Fig. 2, then swung within the opening *i* of clip 7 into the horizontal position, and the opposite end mounted upon pin 8. The clip 6 is then dropped into the horizontal position shown at Figs. 1 and 5 and is firmly held there by means of the cam feature of its rear end engaging the shoulder *m* of the spindle 3, before mentioned.

It will be observed that the ends of the saw rest against the face of the clips and not against any portion of the spindles of the frame. This feature, while not absolutely essential to the operation of the clips is the preferred way for converting the present frames to the use of my improved holding clips.

The essential feature of my invention con-

sists in the use of the U shape clips for maintaining the saw blade upon its end-supporting pins. Also, while I show one of said clips held stationary to its spindle and the other 5 movable thereon, and consider this the preferable method, I hold myself at liberty to arrange both of said clips so that they may both be tilted, if desired.

I hold that a device having a support to 10 embrace the outer surface of the saw blade an equivalent of my construction.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

15 1. The herein described improvement in hack-saw frames, comprising in combination, a frame having spindles or other like supports between which the saw is suspended, U shape clips one or both of which are movable and 20 mounted on such saw supports, saw-supporting pins, said U shape clips arranged to embrace the outer surface of the saw and thus maintain it upon its supporting pins, as set forth.

2. The herein described improvements in 25 hack-saw frames, comprising in combination, a frame carrying saw supports and between which the saw blade is suspended, U shape clips on said saw supports, saw-supporting pins projecting through the base piece of the 30 said supports, one of said U shape clips held stationary, the other arranged to be tilted upon one of the said supporting pins so as to admit the saw thereto, and when tilted into a horizontal position to embrace the saw 35 which, in combination with the stationary U shape clip will maintain the saw in operative position and means for locking said movable clip in its horizontal position, as described and for the purpose set forth. 40

Signed at New Haven, in the county of New Haven and State of Connecticut, this 27th day of September, A. D. 1894.

CHARLES LUKE.

Witnesses:

JOSEPH SHELDON,
FRANK P. CLARK.