

No. 791,513.

PATENTED JUNE 6, 1905.

S. TOLES.
BUCKSAW FRAME.
APPLICATION FILED SEPT. 21, 1904.

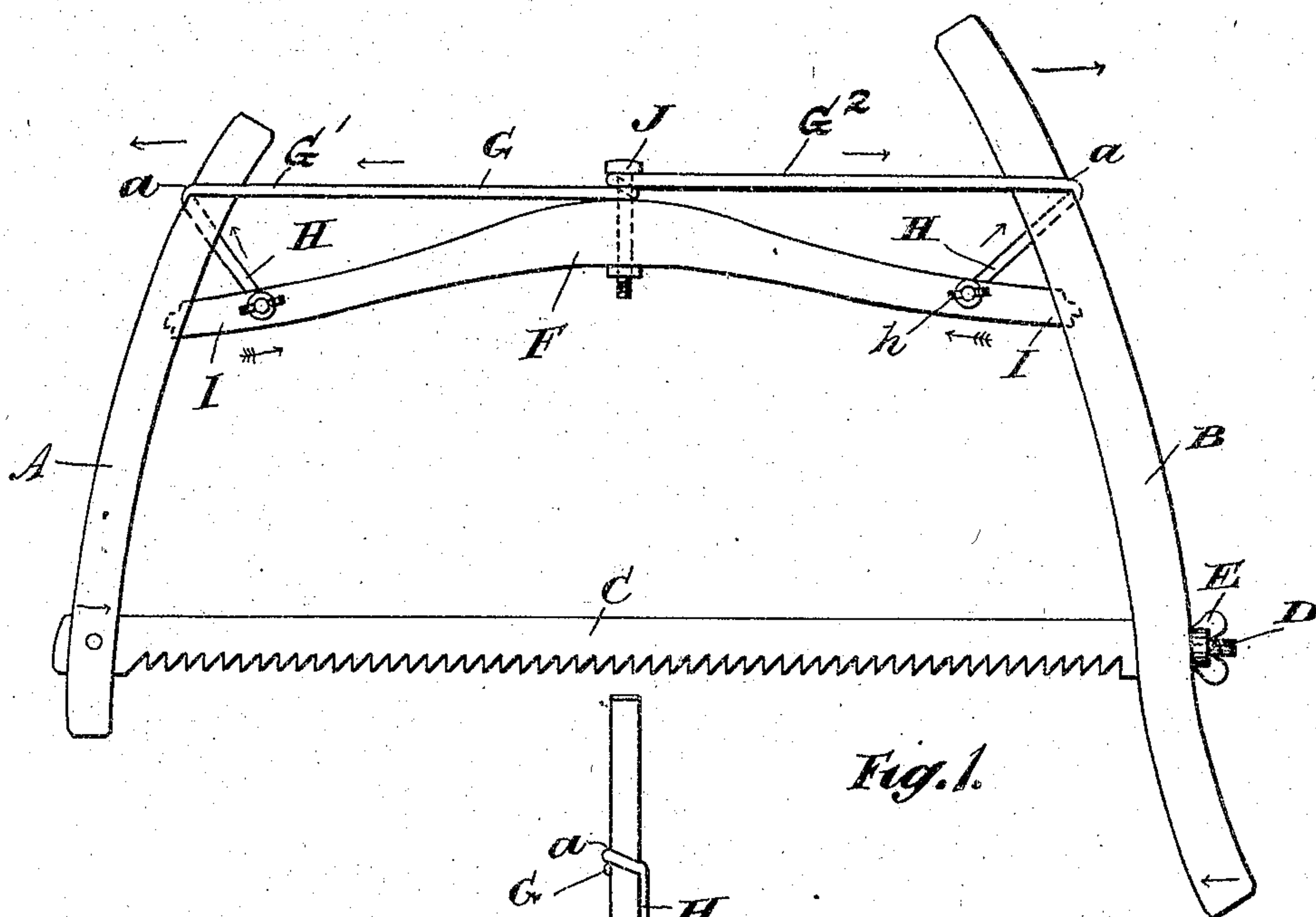
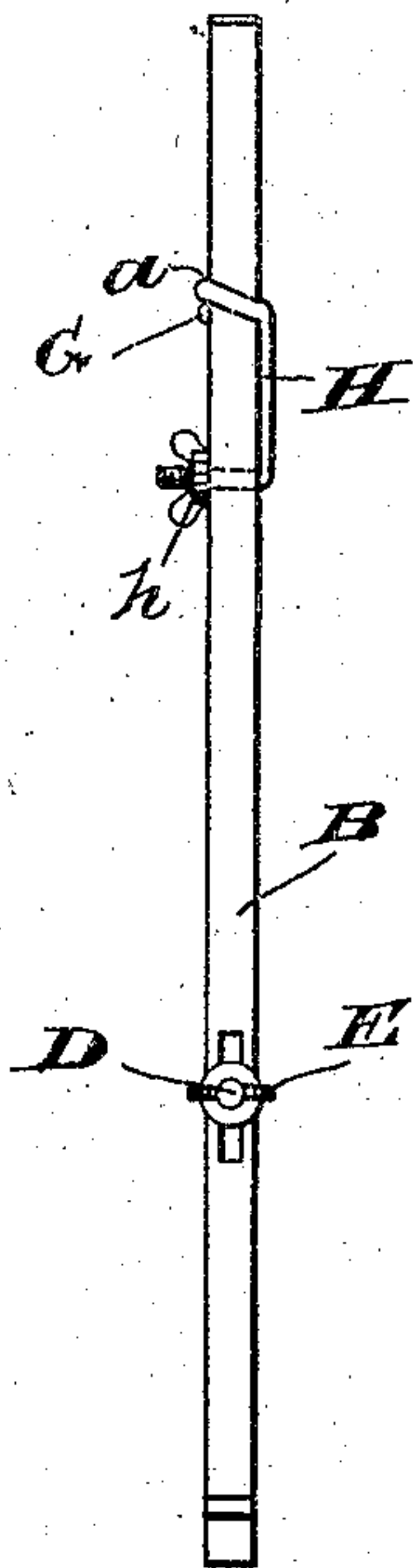


Fig. 1.

Fig. 2.



Witnesses.

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UNITED STATES PATENT OFFICE.

SILAS TOLES, OF GALT, CANADA.

BUCKSAW-FRAME.

SPECIFICATION forming part of Letters Patent No. 791,513, dated June 6, 1905.

Application filed September 21, 1904. Serial No. 225,367.

To all whom it may concern:

Be it known that I, SILAS TOLES, saw-maker, a subject of the King of Great Britain, residing in the town of Galt, in the county of Waterloo, in the Province of Ontario, Canada, have invented certain new and useful Improvements in Bucksaw-Frames, of which the following is a specification.

My invention relates to improvements in bucksaw-frames; and the object of my invention is to construct a bucksaw-frame that will not be warped out of shape either by the effects of the climate or by the stress on the frame caused by the tightening of the saw-blade; and it consists, essentially, in providing the bucksaw-frame with a brace-rod, as hereinafter more particularly explained.

Figure 1 is a side elevation of the bucksaw-frame constructed according to my invention, and Fig. 2 is an end elevation of same.

In the drawings like characters of reference indicate corresponding parts in each figure.

As is well known, the means ordinarily used for tightening the saw-blade is situated above the ordinary brace, and the action of the forces upon the bucksaw-frame moves the lower ends of same in the directions opposite those indicated by arrows at those points in Fig. 1. The forces exerted by the action of the said means operate opposite to those forces exerted by my improved means for this purpose and decidedly tend to buckle the brace. Even when the saw-blade is not held taut the action of the said ordinary means for making said saw-blade taut is more or less exerted to buckle said brace. These forces, coupled with the effects of the climate, warp the ordinary bucksaw-frame. Now by means of my brace-rod I exert forces against the ordinary brace which counteract the buckling forces caused by the tightening of the saw-blade and the effects of the climate. This is not possible with the ordinary means now used for tightening the saw-blade.

A is the short end of the saw-frame, and B long end of same. Suitably secured at one end in the end A is a saw-blade C. By means of any threaded end D projecting through the

long end B and any suitable nut E thereon the saw-blade is tightened.

F is the usual brace, suitably secured in the ends A and B.

The brace-rod G is composed of a first horizontal portion G' and a second horizontal portion G², which are bent around the ends A and B on the same side of the saw-frame above the ends I of the brace F, and their portions H extend at a downward inner angle on the opposite side of the saw-frame and are secured in said brace near its ends I in any suitable manner. As shown in the drawings, the ends of the portions H are threaded and are secured in place by means of the threaded nuts h. Where the portions G' and G² bend around the ends A and B, as indicated at a, I preferably notch said ends, so as to more securely keep said brace-rod in position. It will be noticed that the brace-rod G is looped around the bolt or pin J, secured in the brace F. This construction places the horizontal portion G² higher up in the plane occupied by said horizontal portions than the position occupied therein by the horizontal portion G', but yet said horizontal portions are parallel to each other. When the saw-blade is tightened up, the lower ends of the ends A and B are moved in the directions indicated by arrows, thus causing forces to act upon the portions G' and G² of the brace-rod G, which, together with their portions H, exert forces in the directions indicated by arrows upon said brace to counteract any buckling forces that may be exerted thereupon, the buckling forces being indicated by arrows with tails. By so constructing the brace-rod G and attaching it to the brace F it will be seen that the tightening of the saw-blade causes said portions H to pull outward and upward on the brace F to counteract the effects of any buckling forces. Further, the support given the brace F at its middle portion by the brace-rod G prevents same from sagging.

From this specification it will be understood that when the saw-blade C is tightened up the forces exerted upon the brace F will prevent same from moving out of the plane parallel to the plane of the pieces A and B.

Of course minor changes may be made in

the construction of my saw without departing from the spirit of my invention.

What I claim as my invention is—

1. A bucksaw comprising the short end;
5 the long end; the saw-blade held therein;
means attached to said saw-blade for tightening same; a brace; a brace-rod provided
near its middle portion with a loop which
10 provides a lower horizontal portion and an
upper horizontal portion both being parallel
and in the same plane and on the same side
of the saw-frame, the said portions being
bent around said ends above where the ends
15 of said brace are secured thereto to the opposite
side of said saw-frame and having portions
extending at a downward inner angle
on said opposite side of the saw-frame and
secured to said brace near its attached ends,
20 and a bolt or pin secured in said brace and
projecting thereabove and resting in the loop
formed in said brace-rod, as and for the purpose
specified.

2. A bucksaw comprising the short end;
the long end; the saw-blade held therein;
25 means attached to said saw-blade for tightening

same; an upwardly-curved brace; a
brace-rod provided near its middle portion
with a loop which provides a lower horizontal
portion and an upper horizontal portion 30
both being parallel and in the same plane
and on the same side of the saw-frame, the
said portions being bent around said ends
above where the ends of said brace are secured
thereto to the opposite side of said
35 saw-frame and having portions extending at
a downward inner angle on said opposite side
of the saw-frame and provided with threaded
ends passed through said brace near its attached
ends; nuts screwing on said threaded
40 ends, and a bolt or pin secured in said brace
and projecting thereabove and resting in the
loop formed in said brace-rod, as and for the
purpose specified.

In testimony whereof I have signed my
name to this specification in the presence of 45
two subscribing witnesses.

SILAS TOLES.

Witnesses:

E. W. MacKENZIE,

FREDK. G. ALLENBY.