

(No Model.)

C. P. ROSE.
GANG SAW HOOK AND STIRRUP.

No. 432,567.

Patented July 22, 1890.

Fig. 1.

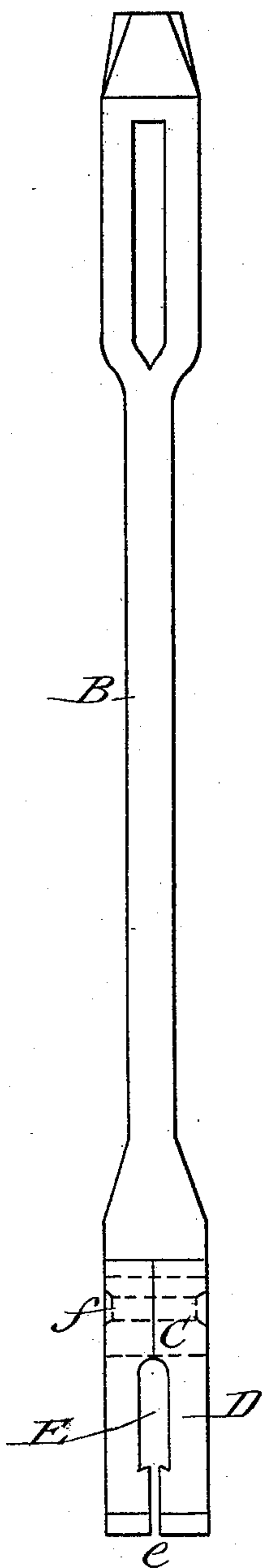


Fig. 2.

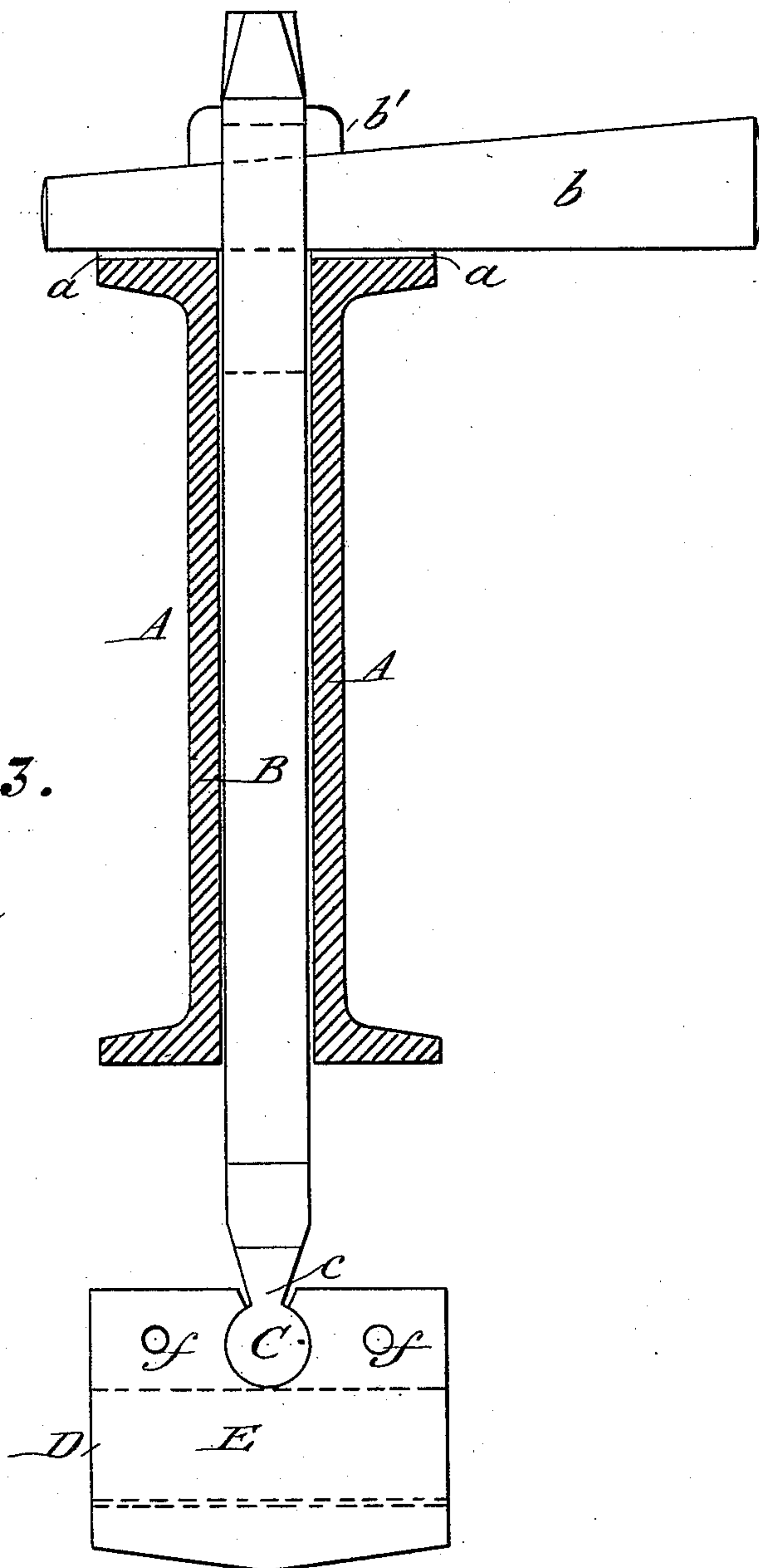
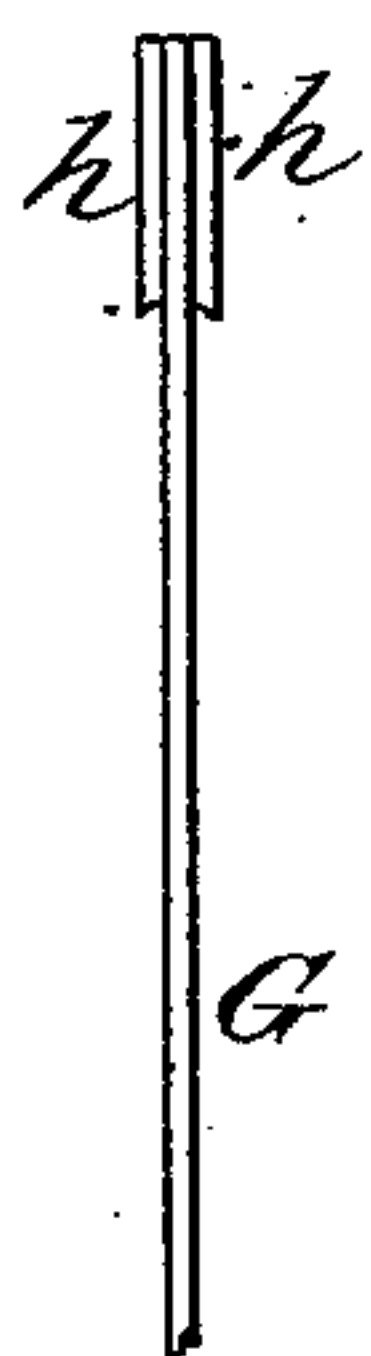


Fig 3.



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UNITED STATES PATENT OFFICE.

CHARLES P. ROSE, OF MUSKEGON, MICHIGAN.

GANG-SAW HOOK AND STIRRUP.

SPECIFICATION forming part of Letters Patent No. 432,567, dated July 22, 1890.

Application filed November 30, 1889. Serial No. 332,132. (No model.)

To all whom it may concern:

Be it known that I, CHARLES P. ROSE, a citizen of the United States, residing at Muskegon, in the county of Muskegon and State of Michigan, have invented certain new and useful Improvements in Gang-Saw Hooks and Stirrups; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to an improvement in gang-saw hooks and stirrups, the object of the invention being to overcome the ordinary defects that exist in gang-saw hooks as now constructed, and to produce a gang-saw hook having peculiar advantages, pre-eminent among which will be a stronger connection between the hook and the stirrup, which will enable saws to be put in perfect order for sawing lumber with considerable less tension than has heretofore been done with any other kind of hook.

Another advantage gained by my improved construction will be a reduction in the cost of manufacture.

The invention consists, essentially, in an improved construction of the lower end of the stirrup, which is made of a circular form and adapted to fit exactly within a circular opening in the upper end of the hook, by which arrangement the hook is allowed to oscillate to some extent on the lower end of the stirrup, and also the hook is permitted to be detached from the stirrup without taking the whole gang of saws apart.

The invention furthermore includes certain peculiarities in the construction, arrangement, and combination of parts, substantially as will be hereinafter more fully described, and pointed out in the claim.

In the accompanying drawings, illustrating my invention, Figure 1 is a front view of my improved combined stirrup and hook for the upper end of gang-saws in gang-saw mills. Fig. 2 is a side elevation of the same, together with the upper girder of the gate, which is shown in cross-section, and the keys for straining the saw. Fig. 3 is a detail edge view of a portion of the saw, with the tabs attached to the upper end of the same.

Similar letters of reference designate corresponding parts in all the figures.

A denotes the upper or top girder or bar of a gang sawing machine. This girder is represented in cross-section in Fig. 2. Its upper surface is lined the entire length with steel strips *a*. The girder and its lining are the same as are commonly used in gang-saw mills, by means of which logs or cants are simultaneously cut into a series of boards while passing through the machine, and therefore in this case I have merely represented and described the upper girder and its lining for the sake of bringing out more clearly and definitely the leading features of my present invention.

B denotes a stirrup, the upper end of which is slotted, as shown, through which slot passes a key *b*. The upper end of the stirrup is also provided with a gib *b'*. Thus it will be seen that the upper end of the stirrup does not differ essentially in its construction from stirrups in common use. The lower end of the stirrup B is made circular or rounding, as at C, and is of the same width as the hook D, which carries the upper end of the saw. This feature of the circular-ended stirrup connected to the hook D constitutes one of the points of my invention.

The hook D is made in the usual manner in two pieces, which are riveted together by means of the rivets *f*. It is provided with the usual slots E and *e*, which are adapted to receive the saw. The upper end of the hook D, however, is provided with a circular opening extending the full width of the hook and adapted to receive the lower circular end C of the stirrup B, which circular end C is fitted nicely into the circular opening in the hook. The opening in the upper portion of the hook is a little wider than the neck *c* of the stirrup. (See Fig. 2.) This is in order to allow the hook to oscillate a certain distance on the stirrup, so as to allow the tabs on the saw to bear the whole width of the hooks when the strain is put upon them.

In Fig. 3, G denotes a portion of a gang-saw, which is illustrated by an edge view. To the top of this portion G are riveted—one on each side—the tabs *h h*, the lower edges of which are inclined or angular to conform to the in-

clined lower edges of the slot E in the hook B, which slot, as we have already seen, is adapted to receive the upper end of the saw and the tabs carried thereby.

5 As is well known, a gang sawing machine has what is called a "gate," consisting of an upper and lower girder firmly secured together, said gate carrying a series of saws, the lower ends of the saws being provided with
10 tabs in exactly the same manner as shown on the upper end of the saw-section G in Fig. 3. These tab-provided ends of the saws are held in place on hooks attached to the lower girder, the upper ends of the saws being attached to
15 the upper girder, as shown in Fig. 2. Therefore it will be observed that each saw is hung between an upper and lower hook. The whole series of saws are then strained to a severe tension by means of keys *b* on top of the up-
20 per girder. Thus it will be obvious that when the strain is put upon the saws the tabs will invariably not bear across the whole length of the hook. More especially will this difficulty occur when the saw is overhung on the
25 top from a vertical line, thus throwing the greatest strain on that end of the hook nearest the teeth or front of the saw. With my improved construction, however, the oscillation of the hook allows of an equal strain through-

out the whole width of the hook. The result 30 of this will be to keep the angular lips of the slot which is located in the hook in a perfectly-straight line; hence by my improved construction of the stirrup and hook the lum- 35 ber can be manufactured more perfectly, and this has been demonstrated by actual experiment.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is— 40

The herein-described gang-saw hook and stirrup, consisting in the combination of the upper girder A, the stirrup B, slotted at its upper end and having gib *b'*, and also having neck *c* and the lower circular end C, the key 45 *b* for straining the saw, the hook D, formed in two parts and slotted at E *e*, and having its upper end provided with a circular opening to receive the circular end of the stirrup, and a saw having the angular tabs *h h* hung in 50 the hook, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

CHARLES P. ROSE.

Witnesses:

ROBERT WEIR,
D. J. MORIARTY.