(No Model.)

# J. S. WHITWORTH.

## STAKE HOLDER.

No. 506,385. Patented Oct. 10, 1893.

*Fig. 1.*

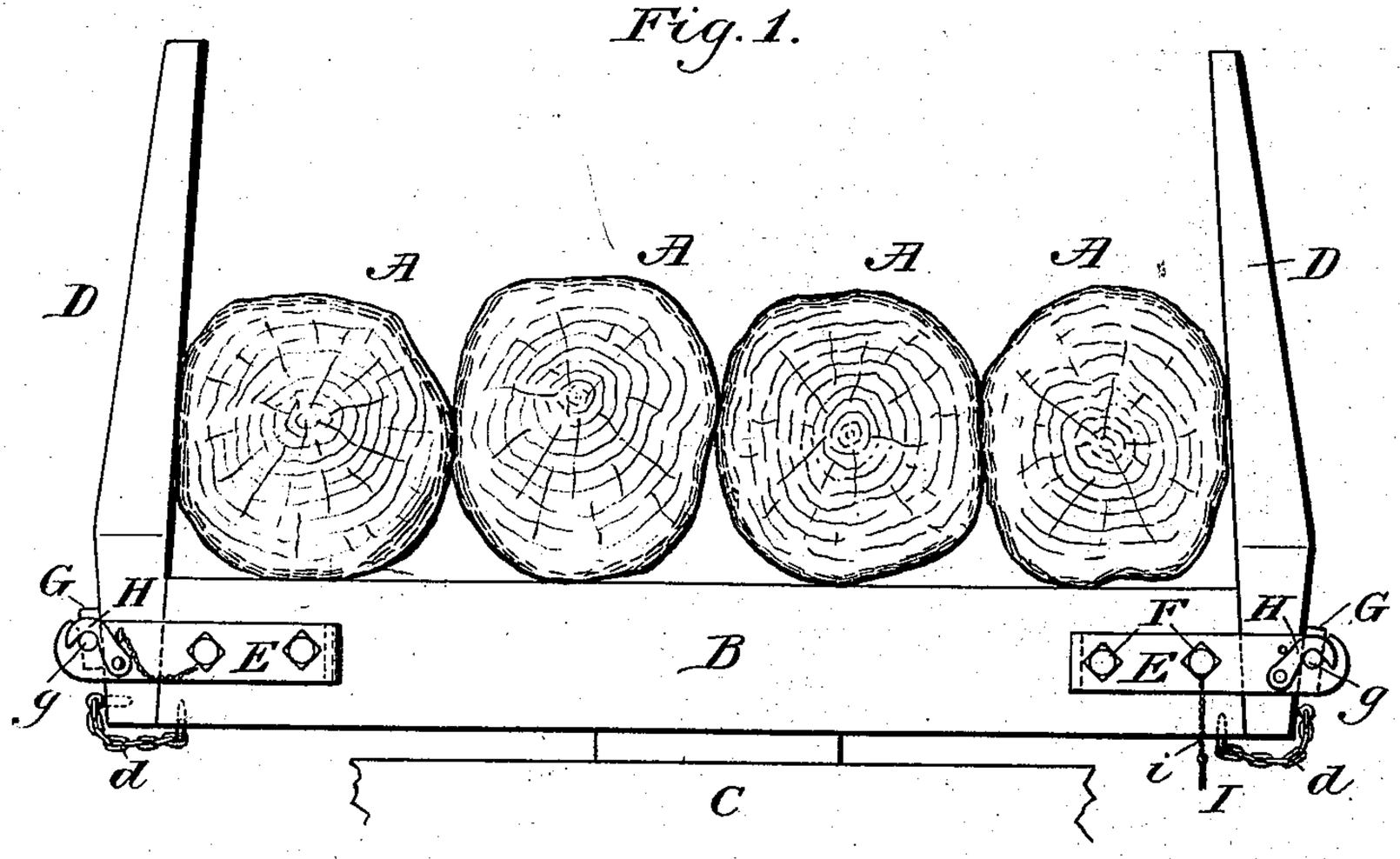



*Fig. 2.*

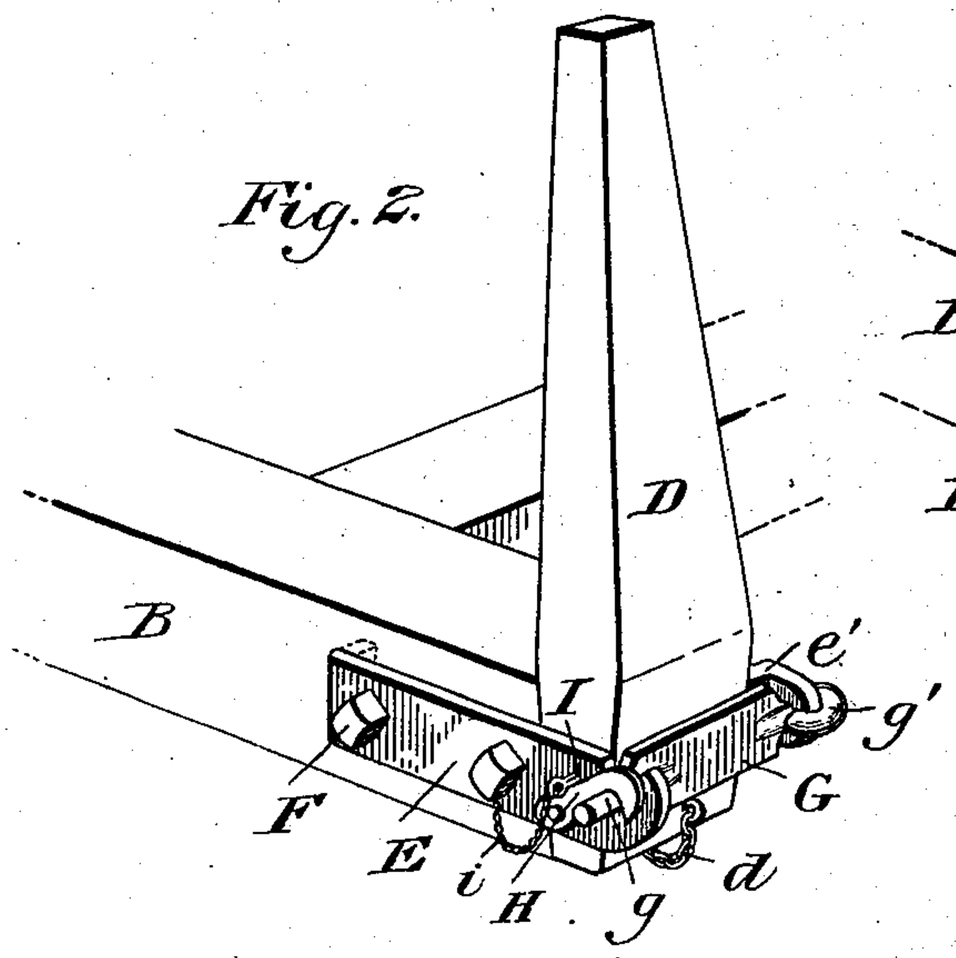



*Fig. 3.*

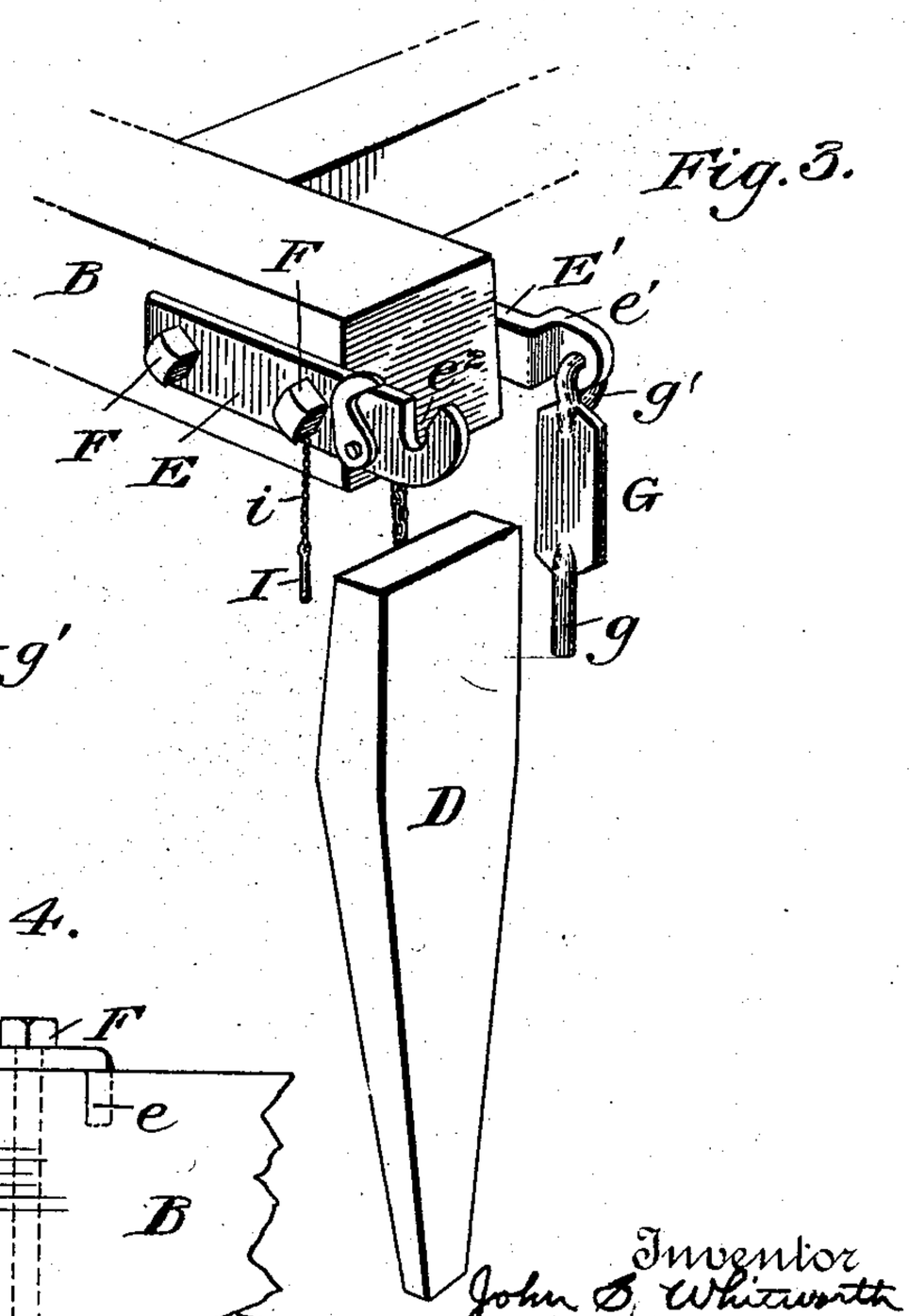
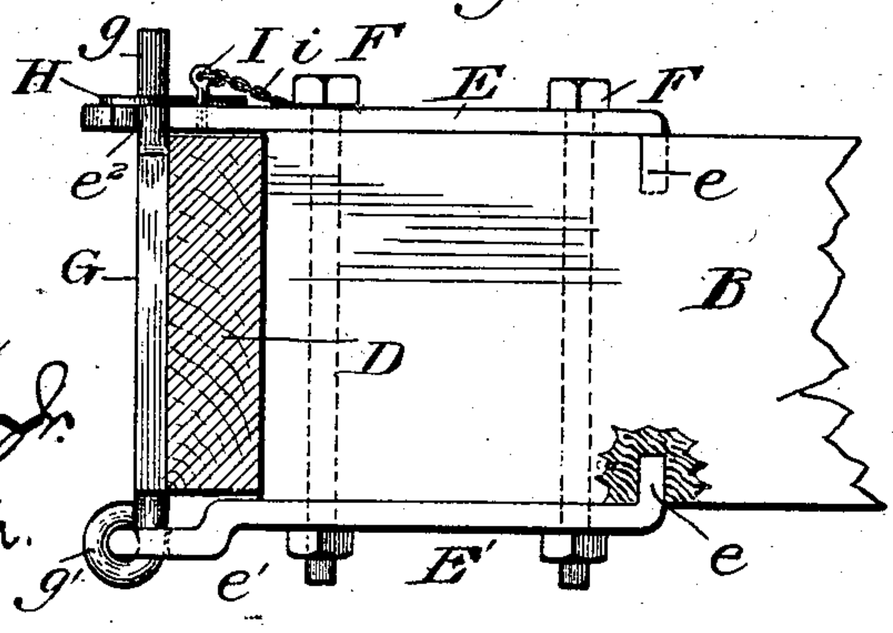



*Fig. 4.*




Witnesses
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# UNITED STATES PATENT OFFICE.

JOHN S. WHITWORTH, OF BERKELEY, VIRGINIA.

## STAKE-HOLDER.

SPECIFICATION forming part of Letters Patent No. 506,385, dated October 10, 1893.

Application filed April 14, 1893. Serial No. 470,300. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN S. WHITWORTH, a citizen of the United States, residing at Berkeley, in the county of Norfolk and State of Virginia, have invented certain new and useful Improvements in Stake-Holders; and I do 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, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

My invention relates to cars for transporting logs, lumber and the like, in which the freight is supported on transverse bolsters at the ends of which are standards to keep the load from falling off the car.

When the logs are to be unloaded, the standards must be removed, and the object of my invention is to provide a simple, strong and easily manipulated fastening for the standards or stakes. I am aware that the stakes have been held by links of round iron passing around the outside of the stake and attached to the end of the bolster. But it is found in practice that these devices cut into the wooden stake and bolster, and bend out of shape, by reason of the heavy pressure to which they are subjected.

My invention aims to prevent all these troubles, and it consists in the devices hereinafter set forth and particularly pointed out in the claims.

In the drawings, Figure 1 is an end view of a flat car equipped with my improved stake holders. Fig. 2 is a perspective view of a stake holder, closed. Fig. 3 is a similar view of the stake holder, open. Fig. 4 is a sectional plan view.

The load, such as the logs A, is supported on the transverse bolsters B, suitably mounted on trucks C. The stakes D are held at each end of a bolster, and confine the load, as shown. Each stake is preferably as wide as the bolster and lies flat against the end thereof. Its outer face is beveled, so that the tapered end thus formed will wedge tightly in the holder. A strong plate E E′ is laid against each side of the bolster, each having its inner end gibbed, that is bent at about right angles to form a hook *e*, which is let into the bolster and affords great resistance to outward strains. The plates are also fastened to the bolster by bolts F passing through both plates and the bolster. The outer ends of the plates project beyond the end of the bolster, and the extremity of the plate E′ is offset at *e′*, and is formed into an eye with which is swiveled the eye *g′* on the end of the hasp G, which is a stout, flat plate having at its other end a shank *g*, preferably round, as shown.

In the upper edge of the projecting end of the plate E is a notch $e^2$ to receive the shank *g*. The outer side of the notch is beveled outwardly, as shown in Fig. 3. Back of and below the notch $e^2$ a hook or catch H is hinged to the plate E, the curved end of which drops over the shank *g* and prevents it from lifting out of the notch $e^2$. It will be noticed upon inspection of Figs. 1 and 2 that any lifting strain upon the shank does not tend to raise the catch, but exerts a pull thereon which is resisted by its hinge. To prevent the catch from being shaken off the shank by the jolting of the car, a pin I is inserted in a hole in the plate E just over the catch. This pin however does not take any strain, being merely a safety device. The pin may be connected with the plate E by a small chain *i*. The stake is preferably loose, being connected with the bolster by a short length of chain *d*. It is evident that substantially the same results would be obtained if the stake should be hinged to the bolster.

To open the bolster and release the stakes, the latch H is thrown back as shown in Fig. 3, and the end of the shank *g* is lifted. As soon as the shank reaches the beveled portion of the notch $e^2$ the pressure against the hasp causes the shank to fly up and out of the notch, and the hasp and stake fall to the position shown in Fig. 3, thereby instantly releasing the load. It is evident that it would not be difficult to arrange a device to trip simultaneously all the hasps on one side of a car. The offset *e′* in the plate E′ is the same as the thickness of the metal of the hasp, so that the latter hangs clear of the edge of the stake, and offers no obstruction to its movements. The flat hasp cannot cut into and wear the stake, and the gibbed ends of the plates relieve the bolts F from the greater portion of the bending strain, so that the device is du-

rable, and easy to keep in repair. By swiveling the hasp to the plate E′ by means of the eye $g'$, the hasp is free to move in any direction, so that it does not have to be turned up and over to clear the stake, but swings out and down as soon as the shank $g$ clears the notch $e^2$.

Having thus described my invention, what I claim is—

1. The combination with a bolster, of two plates bolted thereto and projecting beyond the end thereof, one of said plates having a notch, a stout hasp loosely hinged to the other plate and having a shank to engage with said notch, and a detent to prevent said shank from coming out of the notch, substantially as described.

2. A stake holder comprising two plates, one having a notch and the other having its end bent twice at right angles to form an offset, and a hasp loosely swiveled to said offset end, so as to swing clear of the stake when released from the notch in the other plate, substantially as described,

3. A stake holder comprising a plate having near one end a notch beveled outwardly, and a hinged hasp having a shank to engage with said notch.

4. The combination with a bolster, of two plates bolted to the sides thereof, and projecting beyond its end, each plate having a gibbed end let into the side of the bolster, and a hasp swiveled to one plate and adapted to engage with the other.

5. The combination with a bolster, of two plates bolted thereto and projecting beyond the end thereof, one of said plates having a notch, a stout flat hasp loosely hinged to the other plate and having a shank to engage with said notch, and a catch hinged adjacent to said notch and adapted to drop over said shank.

6. The combination with a bolster, of two plates E E′, a hasp G hinged to the plate E′, a hook H hinged to the plate E, and a pin I adapted to enter a hole in said plate E back of the hook.

7. The combination with a bolster, of a stake adapted to lie against the end thereof, two plates rigidly fastened to the sides of the bolster and projecting beyond the outer face of the stake, and a flat hasp loosely swiveled to one of said plates and detachably engaged with the other plate.

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

JOHN S. WHITWORTH.

Witnesses:
J. C. B. SPENCE,
G. OERTTY.