

(No Model.)

H. KELLER.

SLED.

No. 281,372.

Patented July 17, 1883.

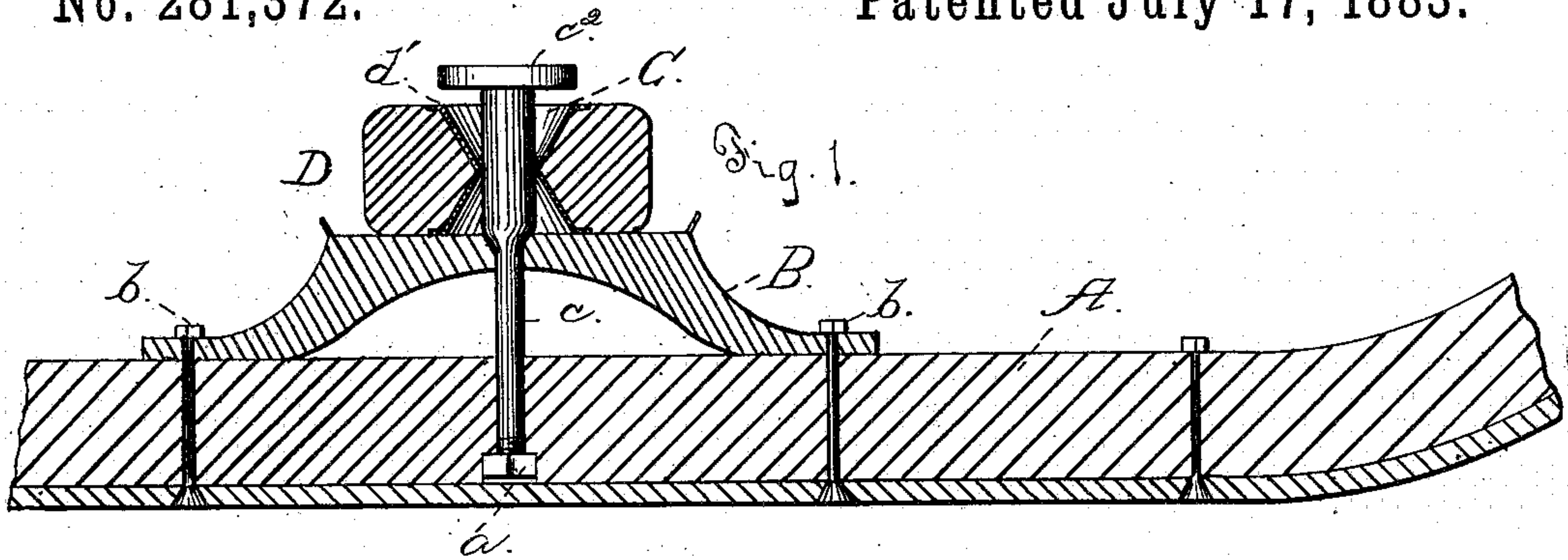


Fig. 2.

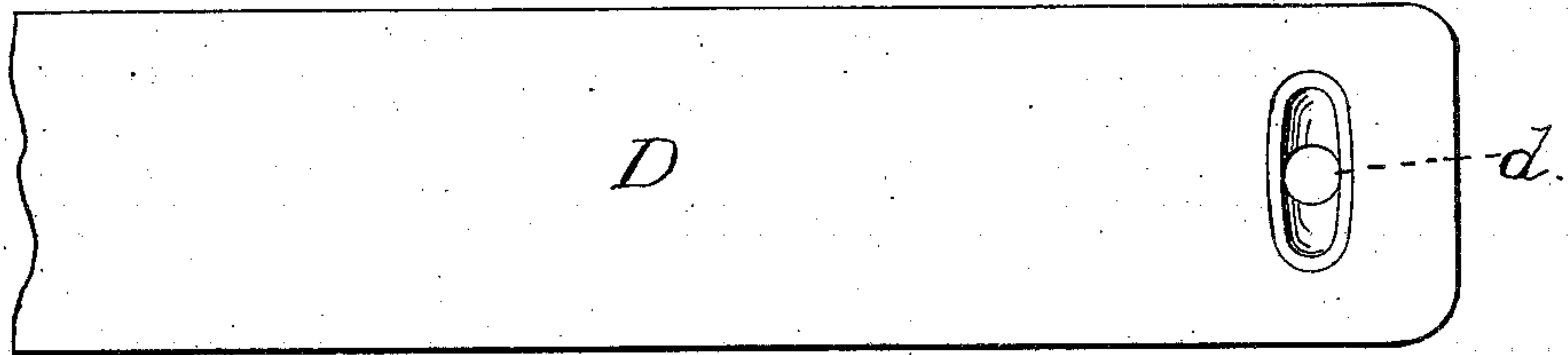


Fig. 3.

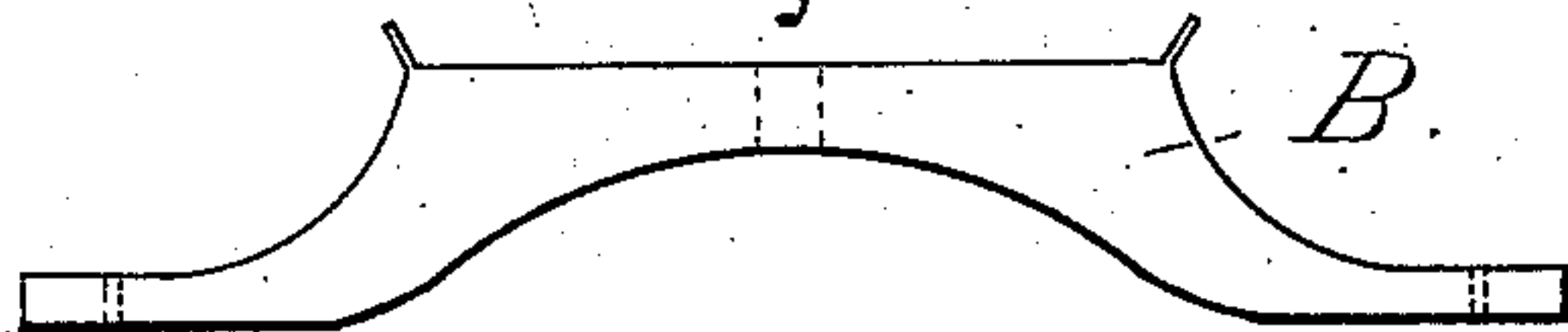
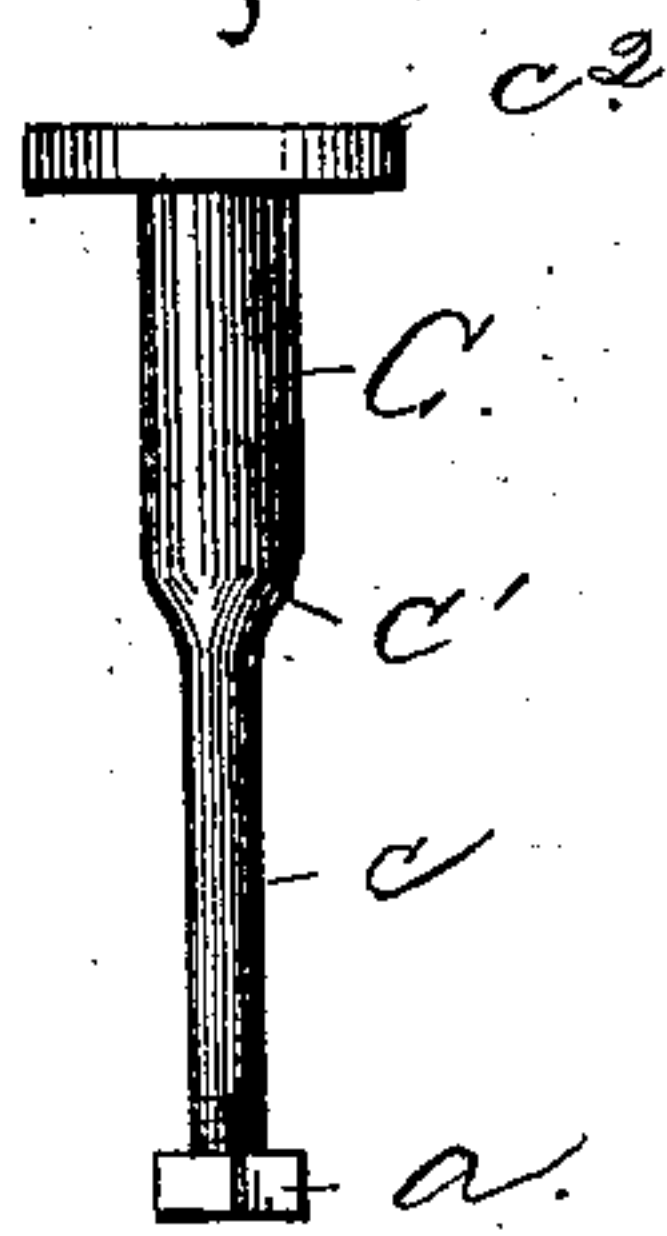


Fig. 4.



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Fig. 5.



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# UNITED STATES PATENT OFFICE.

HENRY KELLER, OF SAUK CENTRE, MINNESOTA.

## SLED.

SPECIFICATION forming part of Letters Patent No. 281,372, dated July 17, 1883.

Application filed April 14, 1883. (No model.)

*To all whom it may concern:*

Be it known that I, HENRY KELLER, a citizen of the United States, residing at Sauk Centre, in the county of Stearns and State of Minnesota, have invented certain new and useful Improvements in Sleds; 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 and figures of reference marked thereon, which form a part of this specification.

My invention relates to improvements in sleds of a class usually employed for hauling logs, and has for its object to provide a substantial, strong sled, and to furnish convenient means whereby the beam may have the rocking motion desirable in sleds of this class.

In the drawings, Figure 1 is a vertical longitudinal section of a runner knee and beam of a sled constructed according to my invention. Fig. 2 is a top view of a part of the beam, and Figs. 3, 4, and 5 are detail views, all of which will be described.

The runner A is constructed in ordinary manner, and is provided, preferably, with a mortise or opening leading from one side, within which I arrange a nut, *a*, to receive the lower end of the standard, hereinafter described. This nut is arranged so it can be turned in order to release the said standard. When so desired, however, a threaded socket may be formed in the top of the runner and the nut *a* be dispensed with. The knee B is made, preferably, of iron, and is secured to the runner A by bolts *b b*, as shown. The top of this knee is made broad and flat to provide a good bed for the beam, which rocks thereon, as will be described. A standard or bolt, C, is projected above the knee B, and its shank *c* is passed down through the said knee, and its lower end is threaded and turns into the nut *a*, or other suitable socket formed in the runner to receive it. The juncture of the standard C and its shank *c* forms a shoulder, *c'*, which rests on the knee, so that the standard is supported by the knee and by the runner. A head, *c''*, is preferably formed on the upper

end of the standard, for the purpose herein- 50 after described.

The beam D is constructed with the mortises *d* formed through it near its ends. This mortise is made the same at both ends, elongated, as shown in Figs. 1 and 2, and midway 55 its ends it is contracted to a diameter corresponding approximately to the standard, which is passed through it. The width of this mortise is preferably uniform from end to end, and about equal or slightly larger than the 60 standard, and the elongation is made in a line parallel with the runners or direction of motion of the sleds.

In order to strengthen the beam I provide iron or other metallic boxes, *d' d'*, corresponding to the shape of the opposite ends of the mortise, which are driven into position, as shown in Fig. 1, and provide a strong, smooth, and lasting bearing for the standard.

In setting up the sled the knee is secured in position and the beam is placed thereon, and the standard is passed down through the mortise *d* and turned to its bearing in the runner, and the sled is ready for use. The connection between the standard and the beam 75 permits the latter to have a free rocking motion, the central or contracted portion of the mortise being the pivotal point. The edges of the beam are rounded to reduce its friction on the knee. The top or head *c''* on the standard holds the beam from slipping off the stand- 80 ard. This is not absolutely necessary, as the standard could be made high enough to prevent all liability to such mishap, but it is desirable. Where so desired, however, short chains could 85 be fastened to the knee and to the beam on opposite sides of the mortise, so as to hold the beam from slipping off the standard, and the head *c''* could be dispensed with.

I prefer to use the knee constructed as de- 90 scribed; but it will be understood that knees of other construction could be employed, and that, if so desired, the runner could be extended up high enough to avoid the necessity of a knee and the beam could be rested directly 95 thereon; also, that the standard could be projected up from the knee or the runner and supported suitably in other manners than as here-



inbefore set forth, though the construction before described is preferred.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, 5 is—

1. In a sled, the beam constructed with the mortise having its outer ends elongated and its middle portion contracted, and a standard or bolt passed through said mortise and secured or made fast in position, substantially 10 as set forth.

2. In a sled, the combination, substantially as hereinbefore set forth, of the runner, the

knee, the beam constructed with the mortise having its outer ends elongated and its middle 15 portion contracted, and the standard passed through the said mortise and the knee, and having its lower end removably secured to the runner, substantially as set forth.

In testimony whereof I affix my signature in 20 presence of two witnesses.

HENRY KELLER.

Witnesses:

C. M. SPRAGUE,

JAMES M. McMASTERS.