No. 646,816. Patented Apr. 3, 1900.

O. ENGER.

LUMBER LOADING DEVICE.

(Application filed Sept. 14, 1899.)

(No Model.)

Fig. 1.

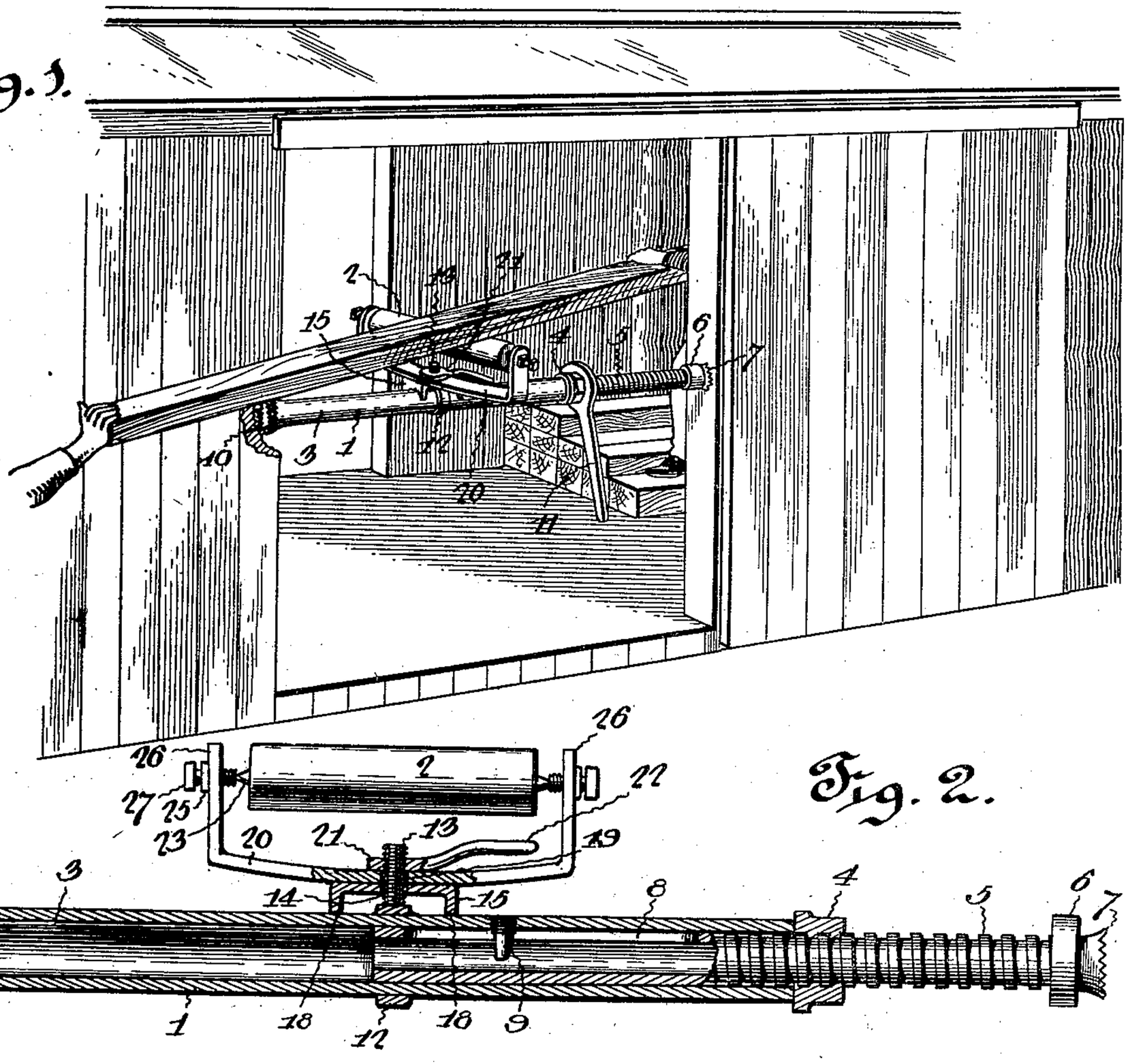


Fig. 2.

Fig. 3.

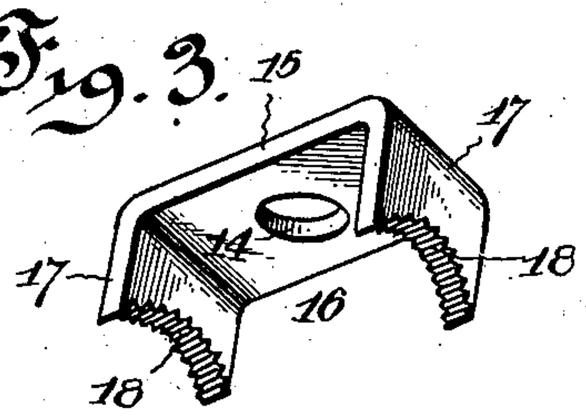
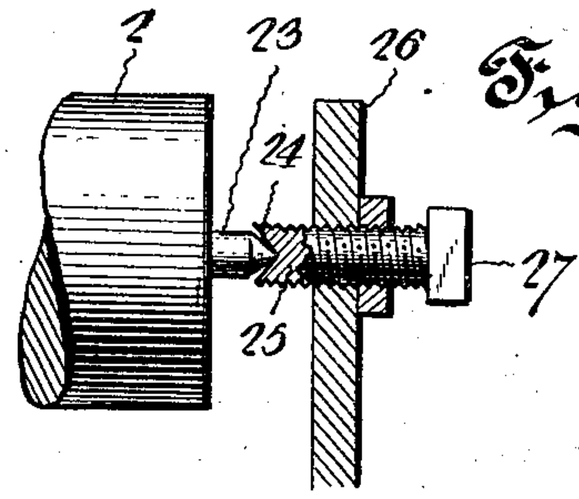


Fig. 4.



Witnesses
J. Frank Culbertwell.
By his Attorneys,

Olof Enger, Inventor.

Chas. S. Hoyer

Chas. S. Hoyer & Co.

UNITED STATES PATENT OFFICE.

OLUF ENGER, OF CHIPPEWA FALLS, WISCONSIN.

LUMBER-LOADING DEVICE.

SPECIFICATION forming part of Letters Patent No. 646,816, dated April 3, 1900.

Application filed September 14, 1899. Serial No. 730,448. (No model.)

To all whom it may concern:

Be it known that I, OLUF ENGER, a citizen of the United States, residing at Chippewa Falls, in the county of Chippewa and State of Wisconsin, have invented a new and useful Lumber-Loading Device, of which the following is a specification.

This invention relates to lumber jacks or pilers particularly adapted for loading cars at either the side or end from a wagon or pile adjacent the car, the objects being to provide a simple, inexpensive, and efficient apparatus capable of ready application without injuring the frame of the car-door or interfering with the movements of the latter and also to provide such devices with adjustable means to vary the angle of the position of the same and accommodate lumber-piling at different elevations.

Other objects and advantages will appear in the subjoined description, and the novelty will be hereinafter claimed, the preferred embodiment of the apparatus being illustrated in the accompanying drawings, wherein—

Figure 1 is a perspective view of a jack embodying the features of the invention and shown applied in operative position. Fig. 2 is an elevation of the improved device partially broken away to illustrate the arrangement of parts. Fig. 3 is a detail perspective view of a bridge included in the apparatus. Fig. 4 is a sectional elevation of a part of the roller and one of its bearings, showing the manner of supporting said roller.

Similar numerals of reference are employed to indicate corresponding parts in the several views.

The numeral 1 designates the stock or roller-support, and 2 the roller, which is adjustable lengthwise of the said stock or support and also angularly thereto in different directions, as will be presently set forth. The stock 1, as more clearly shown by Fig. 2, preferably consists of a tube 3, having against one end a nut or bushing 4, which is threaded to receive a tubular screw 5, the threads on the said screw only extending partially over the longitudinal distance of the latter, and at the outer end said screw is provided with a head 6, having a biting edge 7. The inner part of the said screw 5 is longitudinally slotted, as at 8, to receive an inwardly-extending limiting-pin 9, which prevents rotation of the said screw and also regulates its outward and inward extent relatively to the tube 3. The clear end of the tube 3 is also formed with a biting edge 10, and the nut 4 is fitted to revolve on the screw 5 and operable by a wrench 11, as shown by Fig. 1, to exert a pressure against the adjacent end of the tube 3 and feed the screw either outwardly or inwardly.

On the tube 3 a clamping-band 12 is placed, having a screw-stem 13, which is arranged upwardly for convenience in operation and loosely extends through an opening 14 in the table 15 of a rotatably-adjustable bridge 16, having legs 17 with concaved recesses 18 in the terminals thereof. The walls of the recesses 18 are serrated or otherwise roughened to cause a firm bearing of the legs on the tube 3 and to hold the supported parts above the bridge against slipping or displacement after a desired adjustment has been obtained. The bridge 16 may be adjusted around the tube 3 in order to bring the roller, hereinafter more particularly referred to, in different positions and operable at angles in this direction. The screw-stem 13 also extends upwardly through an opening 19 in a yoke 20, said opening being located centrally in the yoke and large enough to permit the screw to have free play. To clamp the yoke 20 firmly on the bridge 16 and also to hold the latter in secure adjusted position, a nut 21 is employed, which is fitted over the screw-stem 13 and provided with an operating handle or grip 22, which is in convenient position for quick operation in changing the angle of the roller 2. The said roller has pointed center pins 23 in its opposite ends, as clearly shown by Fig. 4, which are received in sockets 24, formed in the inner ends of center screws 25, bearing in the arms 26 of the yoke and having outer heads 27, by means of which they may be adjusted to control the rotation of the roller 2 and also compensate for wear or permit a substitution of another roller of similar construction when one shall have become unfit for further use.

In applying the device the jack 1 is disposed as shown by Fig. 1, and the opposite edges 7 and 10 are caused to firmly engage the door-frame by adjusting the nut 4 in such direction as to feed the screw 5 outwardly

from the tube 3. While in this position the wrench 11 may remain on the jack and be in convenient position for releasing the same at any time desired. The nut 21 is then loosened to permit the yoke 20 to be turned at an angle either across the jack or around the latter, and after the necessary adjustment has been acquired the said nut 21 is tightened up on the screw-stem 13 and the roller firmly held in its working position through the medium principally of the bridge 16. In addition to this adjustment the stock itself can be elevated or lowered, and the apparatus is also equally well adapted for unloading purposes and will have the same operation in either instance. By the use of the bridge 17 the strain of heavy timber is materially relieved from the yoke by the reinforce established by said bridge, and the screw-stem 13 is also strengthened by the interposition of the bridge and less liable to break. By having the inner part of the screw 5 bearing within the tube 3 the said screw is strongly braced and the strain distributed over a greater surface.

Various changes in the form, proportion, and minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of the invention.

Having thus described the invention, what is claimed as new is—

1. The combination of an adjustable support, a clamping-band thereon having a screw-stem, a bridge resting upon the support and through which the screw-stem passes, a yoke carrying a roller and also having the screw-stem extending freely therethrough and a clamping-nut for the said stem.

2. In a lumber-jack, the combination with an adjustable support, of a yoke carrying a roller, a bridge having a rotatable adjustment on the support and against which the yoke has bearing, and means for clamping the yoke in fixed position on the bridge.

3. In a lumber-jack, the combination with an adjustable support, of a yoke carrying a roller, a bridge having serrated legs bearing against the support and interposed between the latter and the said yoke and means for holding the yoke against the bridge.

4. In a lumber-jack, the combination with an adjustable support, of a roller-holding device, a bridge interposed between the roller-holding device and the support, a clamping-band having a screw-stem extending through the bridge and yoke and means for engaging the said screw-stem for securing the roller-holding device and bridge on the support.

5. In a lumber-jack, the combination with an adjustable support and a roller, of a rotatably-adjustable bridge interposed between the roller-holding device and the support, and means for sustaining the several parts.

6. In a lumber-jack, the combination with an adjustable support and a roller, of a bridge interposed between the roller-holding device and the support and having legs formed with recesses provided with roughened walls, and means for securing the several parts in adjusted position.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

OLUF ENGER.

Witnesses:
JOHN G. MONAT,
FRANK GROUNDWATER.