No. 627,095. Patented June 20, 1899.

C. D. BOWLUS.

BUGGY JACK.

(Application filed Oct. 24, 1898.)

(No Model.)

Fig. 1.

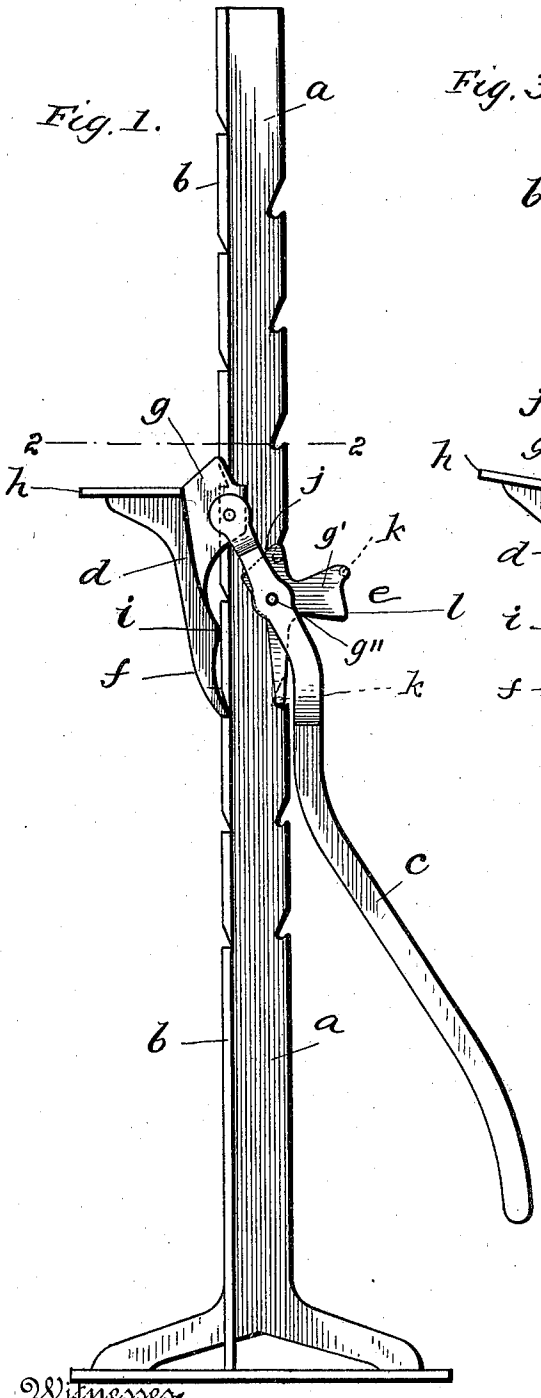


Fig. 3.

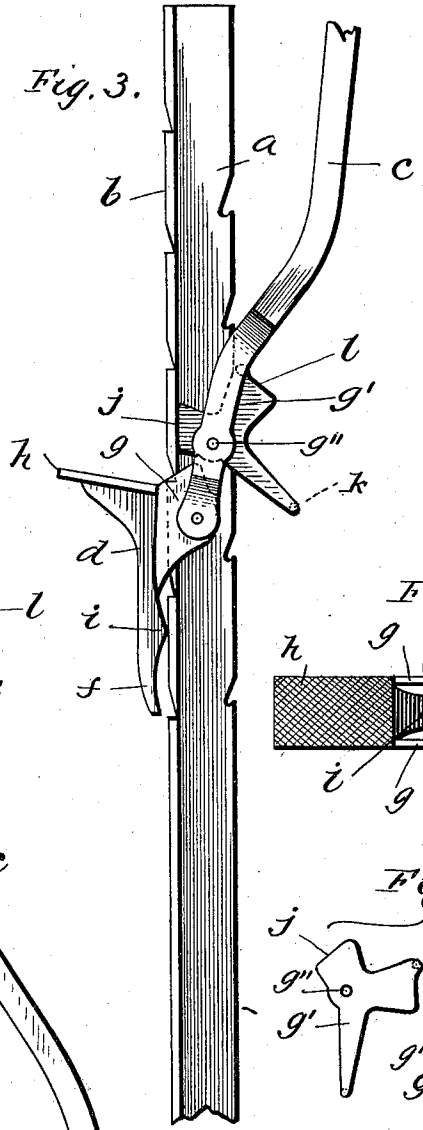


Fig. 2.

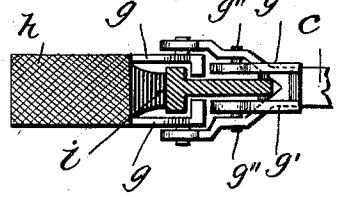
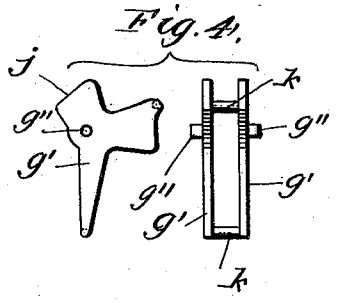


Fig. 4.



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UNITED STATES PATENT OFFICE.

CHARLES D. BOWLUS, OF ANDERSON, INDIANA, ASSIGNOR TO THE BUCKEYE MANUFACTURING COMPANY, OF SAME PLACE.

BUGGY-JACK.

SPECIFICATION forming part of Letters Patent No. 627,095, dated June 20, 1899.

Application filed October 24, 1898. Serial No. 694,402. (No model.)

To all whom it may concern:

Be it known that I, CHARLES D. BOWLUS, a citizen of the United States, residing at Anderson, in the county of Madison and State of Indiana, have invented certain new and useful Improvements in Buggy-Jacks, of which the following is a specification, reference being had therein to the accompanying drawings, in which—

Figure 1 is a side elevation; Fig. 2, a cross-section taken through line 2 2 of Fig. 1; Fig. 3, a partial side elevation showing the manner of disengaging the lifting-foot to permit the same to fall, and Fig. 4 detail views of the fulcrum dog or block.

This invention relates to that class of lifting-jacks in which a lifting-foot is made to ascend by a step-by-step movement up the standard by means of a pump-like movement of the handle, the fulcrum dog or block of the handle also moving up the standard with a step-by-step movement, as more fully hereinafter set forth.

Referring to the drawings by letters, *a* designates a standard rising from a suitable light metal base and formed of a light flat metal bar having oppositely-projecting flanges *b* at its front edge, these flanges giving the standard a substantially T shape in cross-section. The lever *c* is at its forward end bifurcated, the two arms thus formed embracing the standard and the lifting-block *d* and fulcrum dog or block *e*. The lifting-block is supported at the front edge or face of the standard, its depending portion *f* being tapered to a point, which is curved inward toward the face of the standard and is adapted to engage any one of a series of notches in the same, these notches extending a suitable distance along the standard and being equidistantly spaced. Projecting rearward from the upper part of the lifting-block are flanges *g*, which embrace the flanges *b* on the standard, thereby locking the lifting-foot to the standard and permitting it a free up-and-down movement thereon. The axle-engaging part *h* projects horizontally forward from the upper part of the foot-piece, and the forward ends of the arms of the operating-lever are pivotally secured to the wings *g* of the foot-piece on a plane a little below the rest *h*. Thus freely pivoting the foot-block upon the lever at a point near the upper end of the foot-block enables the lower part or pawl *f* of the foot-block to swing inward against the face of the standard and engage one of the notches thereon when pressure is put upon rest *h*. The depending part *f* is provided with a rearward projection *i* at a point between its engaging end and the point of pivotal connection to the lever, so that when the upper end of the lifting-block is drawn in toward the face of the standard this projection *i* serves as a fulcrum upon which the foot-block rocks, thereby throwing out of engagement said pawl *f* and leaving the foot-block free to descend, as shown most clearly in Fig. 3. It will be observed that sufficient space is necessary between the turned-in parts of the flanges *g* and the main part of the foot-block to permit this free rocking movement on fulcrum *i*.

The dog *e* is pivoted between the arms of the lever at a short distance back of the pivotal connection to the foot-block and is adapted to move up and down on the rear edge of the standard and engage a series of notches therein in somewhat the same manner as the foot-block operates on the face of the standard. It consists of a pair of plates *g'*, having a substantially triangular shape and each supporting one of the fulcrum-pivots *g''* of the lever and working between the respective arms of the lever and the sides of the standard. Connecting the plates are two small cross-pins *k*, one pin being located at the upper end of the device and the other at the lower end, the latter being adapted to engage in the notches in the rear edge of the standard. The object of this fulcrum-dog will be best understood by a description of the operation of the jack.

In operation it is simply necessary to adjust the axle-rest *h* under the axle or other part to be lifted and then elevate the handle end of the lever, the fulcrum-dog *e* being allowed to swing inward toward the standard to engage its lower pin *k* in one of the notches in the rear edge thereof, the lower end of the fulcrum-dog being forced to swing normally against the standard by reason of the rear-

ward-projecting parts *l* thereof, which serve as weights, as is evident. When the fulcrum-dog is thus raised to engage one of the notches above that engaged by the foot-block, the operator then depresses the lever, thereby bringing the foot-block up against the buggy-axle and causing the pawl *f* to swing in against the face of the standard and rest in one of the notches when the lever is released and support the axle. This operation is repeated if it be desired to lift the axle higher. When it is desired to release the foot-block and permit it to fall, it is simply necessary to raise the operating-lever until the upper forward-projecting parts *j* of the fulcrum-dog strike against the rear faces of the flanges *b*, which causes the lever to draw backward the upper end of the foot-block, as shown in Fig. 3, and disengage the depending pawl part *f* from the standard, whereupon the foot-block and the attached parts will be free to fall.

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

1. In a lifting-jack, the combination of a standard, having a vertical series of notches, a lifting-block adapted to travel vertically on the standard and provided with a pawl part adapted to engage said notches, a lever pivotally attached to said lifting-block and adapted to lift the same, and a fulcrum-dog pivotally swung to the lever and normally engaging the standard upon the rear edge thereof and adapted to move up the standard step by step.

2. In a jack, the combination of a standard provided with two vertical series of notches, an operating-lever, a lifting-block pivotally swung at its upper end to said lever, the lower end of said lifting-block being formed into a pawl adapted to swing into engagement with the notches on the standard, a fulcrum-dog also pivotally swung to the lever and adapted to engage the opposite edge thereof, this fulcrum-dog being provided with means normally swinging it into engagement with notches on the rear edge of the standard, substantially as and for the purpose set forth.

3. The combination of a standard provided with a vertical series of notches, a lever, a lifting-block pivotally swung from said lever and having its lower end normally engaging the notches in the standard, in the manner of a pawl, a rearward projection, as *i*, at a point above the engaging end of the pawl, this part *i* being adapted to bear against the face of the standard and release said pawl part, and a fulcrum-dog carried by the lever and adapted to engage the standard at different points along the same, substantially as and for the purpose set forth.

4. In a lifting-jack, the combination of a base and standard, a lifting-foot adapted to move along one edge of the standard and provided with an engaging pawl at its lower end and a fulcrum-point, as *i*, above its lower end, a lever having its forward end pivoted to said lifting-foot above the fulcrum-point, whereby said lifting-foot is free to swing against the standard, a fulcrum-dog pivoted to the lever and adapted to engage the standard at different points along the length of the same, said fulcrum-dog being provided with a forward projection, as *j*, adapted to impinge against the standard when the lever is elevated and thereby disengage the engaging end of the lifting-foot.

In testimony whereof I hereunto affix my signature, in the presence of two witnesses, this 17th day of October, 1898.

CHARLES D. BOWLUS.

Witnesses:
JOHN W. LAMBERT,
HARVEY E. LONGENECKER.