July 29, 1947. L. A. HANEY 2,424,929

POST HANDLING JACK

Filed Oct. 3, 1946

Fig. 1.

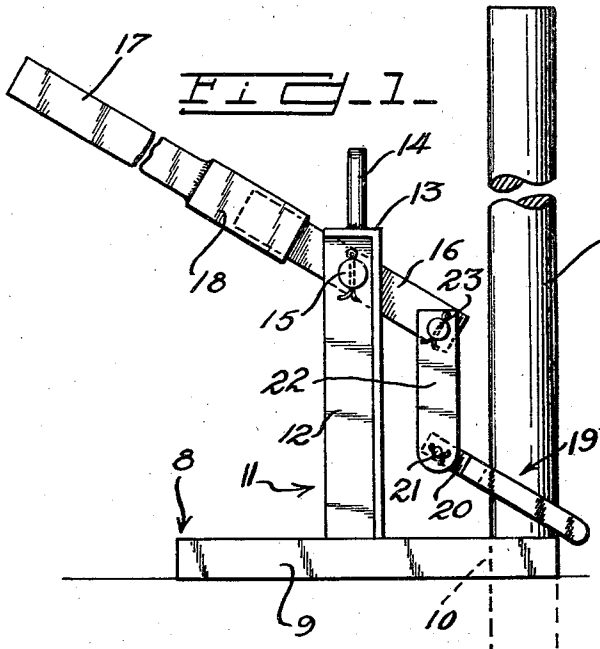


Fig. 2.

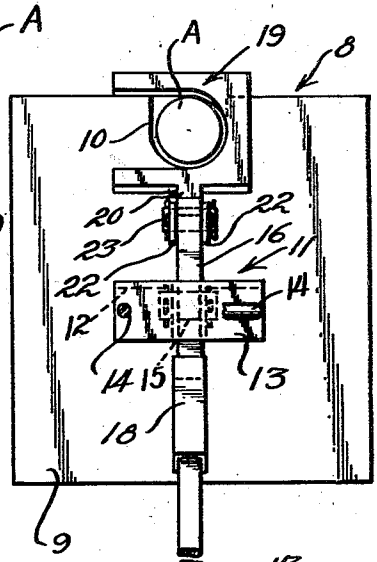


Fig. 3.

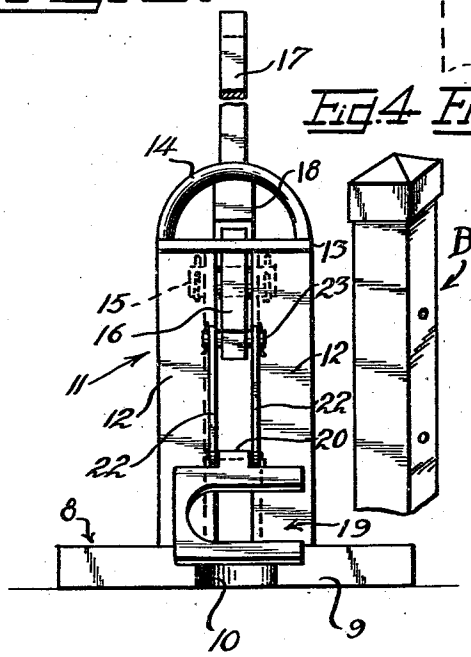
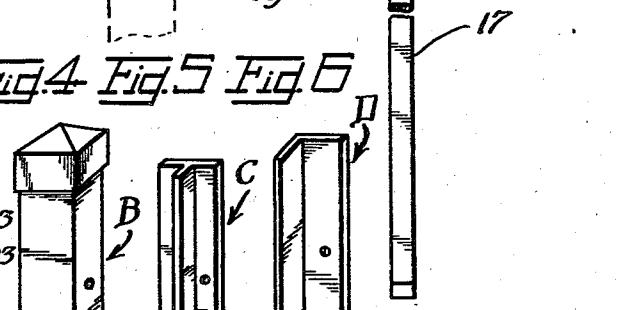


Fig. 4 Fig. 5 Fig. 6



Inventor

Lawrence A. Haney—

By Clarence A. O'Brien and Harvey B. Jacobson

Attorneys

Patented July 29, 1947

2,424,929

UNITED STATES PATENT OFFICE

2,424,929

POST HANDLING JACK

Lawrence A. Haney, St. Paul, Minn.

Application October 3, 1946, Serial No. 700,872

2 Claims. (Cl. 254—132)

1

The present invention relates to a novel and improved manually operated mechanical jack which is expressly designed for handling posts and the like.

More specifically, the invention has to do with a simple, practical and economical jack for perpendicularly lifting and lowering heavy fence posts, principally metal posts, the preferred embodiment of the invention being characterized by a stand, a swingably mounted cant hook to embrace the post, and means for operatively mounting said hook on said stand.

More particularly, the invention comprises a stand having a flat base plate with an accommodation notch to receive and guide the post, an upright on said base, a lever fulcrumed on said upright, a cant-hook, and linkage connecting the hook with an adjacent operating end of said lever.

One phase of novelty is thought to reside in the notched base plate provided with a simple upright structure made up of a pair of angle irons vertically disposed and spaced apart and connected at their upper ends and provided at said upper ends with a bail-like hand-grip.

Novelty is also thought to reside in the adoption and use of a simple and expedient horseshoe-shaped cant-hook and the specific means whereby it is operably mounted on said base plate and centered over the post guide notch in said base plate.

Other objects, featutres and advantages will become more readily apparent from the following description and the accompanying illustrative drawings.

In the drawings:

Figure 1 is a side elevational view of a post lifting and lowering jack constructed in accordance with the principles of the instant invention,

Figure 2 is a top plan view of the same,

Figure 3 is a front elevation, that is a view observing Figure 1 in a direction from right to left, and

Figures 4, 5 and 6 are perspective views of different types of posts which may be handled with a jack of the type shown and described.

Referring now to the drawings by distinguishing reference numerals, it will be seen that the portable stand is denoted, generally speaking, by the numeral 8 and comprises a substantially rectangular base plate 9 having a notch in one perimeter edge, said notch indicated at 10 and serving as an adaptor and guide for the post A. The notch permits the base plate to be shoved up against and to partly surround the post in

2

order to facilitate the post handling steps. The upright means or standard is denoted by the numeral 11 and this comprises a pair of vertical spaced and parallel angle irons 12, these rigidly connected at their lower ends to the central region of the base plate. The upper ends of the angle irons are connected together by a head or cross-piece 13 provided with a bail-like hand-grip 14. The numeral 15 designates a horizontal fulcrum pin which is removably mounted in the upper end portions of said angle irons. This pin serves to accommodate a simple lever 16 which may be formed integral with the pin, or which may be rockably mounted on the pin, as desired. The operating handle for the lever is denoted by the numeral 17 and is provided with a socket 18 fitting over the lever. Suitable length handles may be employed is practice depending upon the leverage wanted and the conditions of lifting, lowering and weight handling met by the user.

The post engaging cant-hook is denoted by the numeral 19 and as before stated is of general horseshoe-shaped form and embraces the post and is located directly over and moves up and down in alignment with the notch 10. This hook is provided on one side with a lug 20 pivotally pinned, as at 21, between the lower ends of spaced parallel links 22 which are, in turn, pivotally pinned, as at 23, to the adjacent operating end of said lever 16.

The jack means shown and described lends itself adaptable to handling various types of posts, that is metal posts of varying cross sectional shape. In Figure 1, I have shown a post A which is cylindrical in cross section. In Figure 4, there is a post B which is rectangular in cross section. In Figure 5, I have depicted a so-called T-shaped post C, while in Figure 6 I show an ordinary, sometimes used, angle iron post D.

It is submitted that the invention shown and described is aptly suited to achieve the ends sought, is characterized by a combination of highly useful and mutually cooperable expedients and that the latter combine their assistive and proportionate functions in enabling the user to readily position the stand and cant-hook and to then, with a minimum of effort, dislodge and lift a heavy post in a practical and convenient step-by-step manner. The invention is primarily useful in withdrawing posts from the ground but, of course, may be employed in the initial step of setting the posts in post holes provided in the ground.

A careful consideration of the foregoing description in conjunction with the invention as

illustrated in the drawings will enable the reader to obtain a clear understanding and impression of the alleged features of merit and novelty sufficient to clarify the construction of the invention as hereinafter claimed.

Minor changes in shape, size, materials and rearrangement of parts may be resorted to in actual practice so long as no departure is made from the invention as claimed.

I claim:

1. In a post handling jack construction of the class described, a base plate, an upright structure on said base plate comprising a pair of perpendicularly arranged and spaced angle irons, a rigidly attached cross-piece mounted atop and securing the upper ends of said angle irons together, hand-grip fixedly carried by said cross-piece, a lever fulcrumed between the upper end portions of said angle irons, a horseshoe-shaped cant-hook adapted to tiltably embrace and frictionally grip the post, a pair of links carried by, depending from and pivotally mounted on said lever, and a pivotal connection between the lower ends of said links and an adjacent portion of said cant-hook.

2. A post-pulling jack of the class described comprising a substantially rectangular flat bottomed base plate provided on one marginal edge with a post accommodating and guide notch, upright means mounted on the central portion of said base plate and embodying a pair of perpendicularly disposed, spaced and parallel angle irons, a horizontal cross-piece mounted atop and secured rigidly to the upper ends of said angle irons, a horizontal fulcrum pin mounted in the upper end portions of said angle irons, and situated in parallelism beneath said cross-piece, a relatively short lever fulcrumed intermediate its ends on said fulcrum pin, one projecting end portion of said lever being adapted to accommodate a detachable socket-equipped handle, a pair of links carried by, depending from and pivotally mounted on the opposite end of said lever, a rigid heavy-duty horseshoe-shaped cant-hook situated within the marginal limits of the base plate and aligned with and movable toward and from said notch, one limb of said cant-hook being provided with a laterally projecting lug and said lug being pivotally mounted between the lower end portions of said links.

LAWRENCE A. HANEY.

REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
57,905	Holmes	Sept. 11, 1866
72,277	Foster	Dec. 17, 1867
83,687	Borgort	Nov. 3, 1868
1,774,661	Otto	Sept. 2, 1930
1,778,682	McManus	Oct. 14, 1930