

R. RUE.
DITCHING JACK.

Patented July 27, 1897.



Witnesses
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DITCHING-JACK.

SPECIFICATION forming part of Letters Patent No. 587,274, dated July 27, 1897.

Application filed January 22, 1897. Serial No. 620,265. (No model.)

To all whom it may concern:

Be it known that I, ROSS RUE, a citizen of the United States, residing at Alliance, in the county of Stark and State of Ohio, have invented certain new and useful Improvements in Ditching-Jacks; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters of reference marked thereon, in which—

Figure 1 is a view showing my device applied. Fig. 2 is a side elevation. Fig. 3 is a longitudinal section. Fig. 4 is a transverse section through line $x x$, Fig. 3. Fig. 5 is a transverse section through line $y y$, Fig. 3.

The present invention has relation to ditching-jacks; and it consists in the different parts and combination of parts hereinafter described, and particularly pointed out in the claims.

Similar letters of reference indicate corresponding parts in all the figures of the drawings.

In the accompanying drawings, $a a$ represent the two outer cylinders, which are located and arranged substantially as shown in the drawings. The inner cylinder b is formed of a length to correspond substantially with the length of the braces or jack designed to be constructed, except the length is extended at each end by the addition of the shoes or heads. Within the cylinder b are located the screw-threaded shafts C and C' , one of said screw-threaded shafts being provided with a right-hand thread and the other with a left-hand thread. The ends of the cylinder b upon their inner faces are provided with screw-threads a' , which screw-threads engage the screw-threads formed upon the screw-threaded shafts C and C' . The screw-threaded shaft C is provided with the flanged head a^2 , which flanged head is extended and provided with the ball h , which ball is provided with the rounded extensions j , which extensions are housed in the semicircular recesses J , said recesses being formed in the cap f , said cap being connected to the shoe or head B by means of the flanges f' and d , said flanges being securely connected together by means of suitable clamping-bolts.

For the purpose of preventing the head or

shoe B from becoming accidentally displaced and from rotation the piercing-points k are provided, which points become seated in the timbers upon which the head B is placed against.

For the purpose of allowing the jack proper to be set at an angle to the shoe or head B the semicircular recesses J are formed somewhat larger than the rounded extensions j , but said recesses and rounded extensions being so formed that the lateral adjustment of the jack proper to the head will be limited. The head h will properly connect the shoe to the screw-threaded shaft C by means of the cap f , said cap overlapping the head h .

For the purpose of connecting one of the cylinders a to the screw-threaded shaft C , so as to cause said cylinder to rotate with the screw-threaded shaft, the bolt d' is provided, which bolt is passed through the head of the screw-threaded shaft and the end of the cylinder a , substantially as illustrated in Fig. 3. Between the inner ends of the screw-threaded shafts C and C' is located the cross-bolt g , to which cross-bolt is pivotally attached the handle d^2 , said handle being for the purpose hereinafter described. The cross-bolt g is extended through the cylinder b , as illustrated in Fig. 3, and is for the purpose of rotating said cylinder by means of the handle d^2 after said handle is turned into the position illustrated in Fig. 2.

For the purpose of strengthening the cylinder b and at the same time stiffening the jack the collar or thimble g' is provided and is located upon the outer side of the cylinder b , as illustrated in Figs. 2 and 3. It will be understood that the cross-bolt g should and does extend through the collar or thimble g' . For the purpose of providing a proper surface for the handle d^2 to rotate and rest upon and at the same time to provide sufficient bearing-surface for said handle during the time the cylinder b is rotated the flat surface g^2 is formed upon the side of the collar or thimble g' adjacent to the handle d^2 . It will be understood that the collar or thimble g' may be formed of any desired length, reference being had to the space between the inner ends of the cylinders a .

The screw-threaded shaft C is provided with the head C^2 , which head is provided with the

es h' , to which flanges are pivotally attached the operating-handles m . The head is provided with the ball h' , which ball is in place and connected to the shoe B' by means of the cap g^3 , said cap and shoe being rigidly connected together by the clamping-bolt g^4 . The heads h' are provided with the sockets h^2 , which sockets are located directly opposite each other, as illustrated in Fig. 3. When it is desired to prevent the rotation of shaft C' , the set-screws j' are seated into the sockets h^2 , thereby holding both the shafts C and C' against rotation, at which time the adjustment of the jack is brought about by means of the handle d^2 , said handle being rotated around the barrel b , carrying said barrel with the handle, at which time the heads B and B' are forced away from each other at the same time. When it is desired to use the jack with a full extension, the set-screws j' are rotated so that their inner ends are removed from the sockets h^2 , at which time the head or ball h' is free to turn in its socket, thereby allowing the screw-threaded shaft C' to be rotated independent of the different parts of the jack means of the handles m , except the outer handle a , located over the screw-threaded shaft C' . For the purpose of bringing the handle d^2

out of the way after the jack has been properly adjusted it is preferably turned parallel with the jack, as illustrated in Fig. 3, in which position timbers can be placed upon the jack without any interference.

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

1. The combination of the cylinders a , the cylinder b , located parallel within the cylinders a , the right and left hand screw-threaded shafts C , and C' , provided with the balls h and h' , the shoes B , and B' , the thimble or collar g' , located around the cylinder b , and the cross-bolt g , substantially as and for the purpose specified.

2. In a ditching-jack, the combination of the screw-threaded shafts C , and C' , cylinders a , securely connected to said shafts, the cylinder b , and means for holding the screw-threaded shaft C , against rotation, substantially as and for the purpose specified.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

ROSS RUE.

Witnesses:

BERTHA FINCH,
FRED W. BOND.