

May 5, 1925.

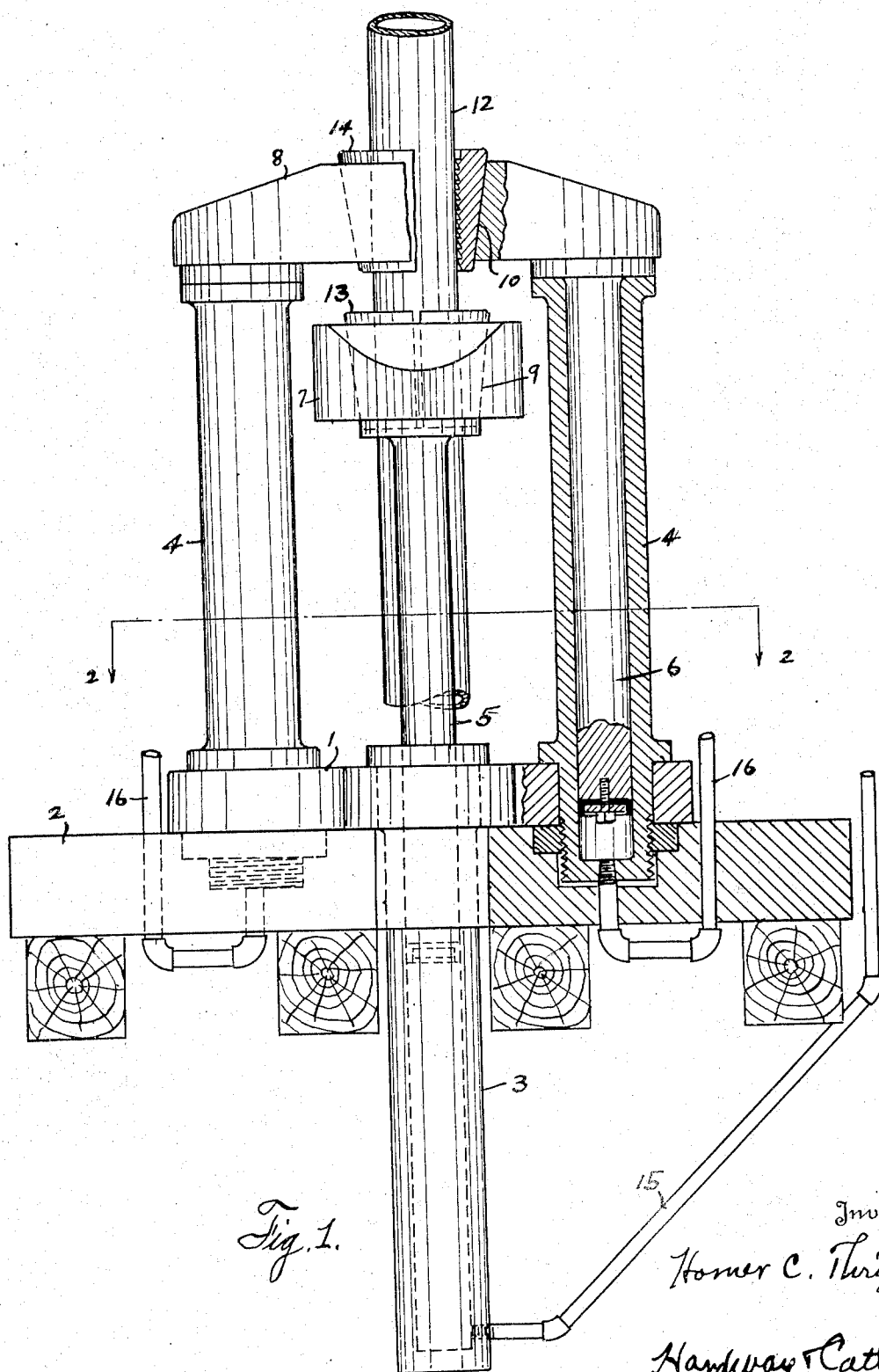
1,536,413

H. C. THRIFT

PIPE PULLER

Filed Nov. 12, 1921

2 Sheets-Sheet 1



Inventor
Homer C. Thrift.
Harvey Cather
Attorneys

May 5, 1925.

1,536,413

H. C. THRIFT

PIPE PULLER

Filed Nov. 12, 1921

2 Sheets-Sheet 2

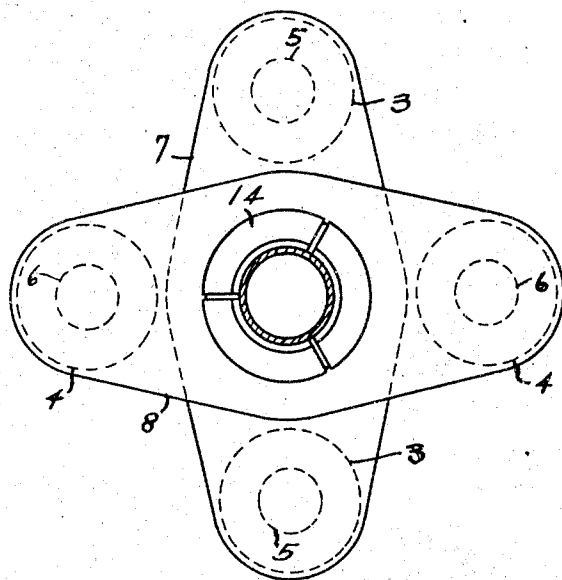


Fig. 3.

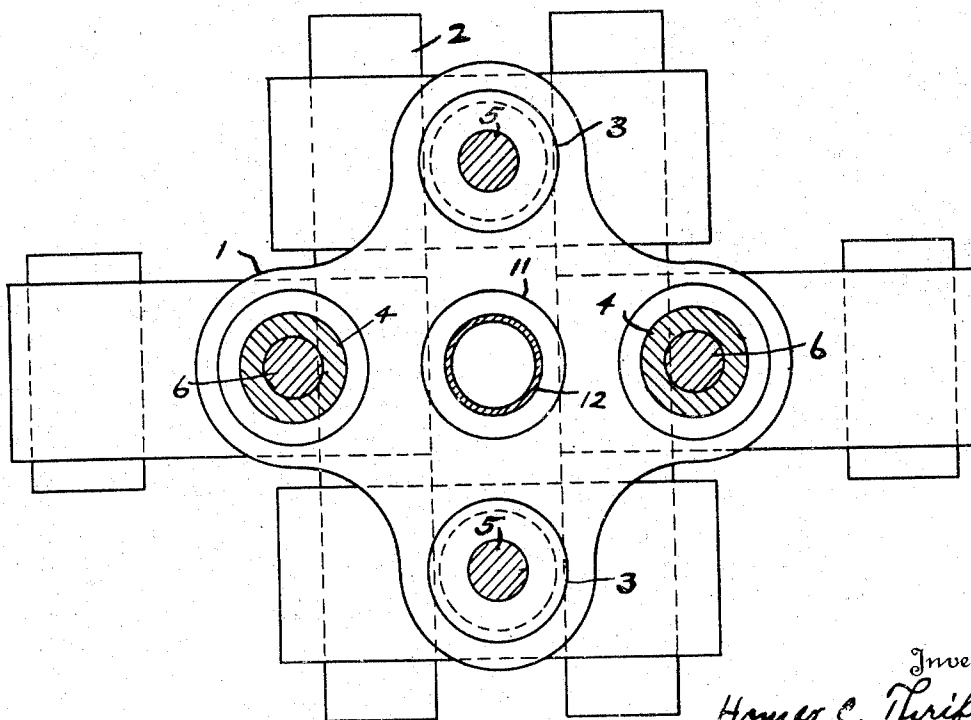


Fig. 2.
By

Inventor
Homer C. Thrift,

Handway, Packer
Attorneys

UNITED STATES PATENT OFFICE.

HOMER C. THRIFT, OF BURKBURNETT, TEXAS.

PIPE PULLER.

Application filed November 12, 1921. Serial No. 514,744.

To all whom it may concern:

Be it known that I, HOMER C. THRIFT, citizen of the United States, residing at Burkburnett, in the county of Wichita and State of Texas, have invented certain new and useful Improvements in a Pipe Puller, of which the following is a specification.

This invention relates to new and useful improvements in a pipe puller.

One object of the invention is to provide a device of the character described which has been specially designed for pulling pipe from wells.

Another object of the invention resides in the provision of a device of the character described, equipped with two pipe engaging members which alternatively engage with the pipe to elevate it and automatically release the pipe alternatively, to secure a new hold on the pipe.

A further feature of the invention resides in the provision of a device of the character described which is readily accessible to those working on the derrick floor, and which may be readily manipulated.

A still further feature of the invention resides in the provision of a pipe pulling device which may be cheaply and easily constructed and easily operated.

With the above and other objects in view the invention has particular relation to certain novel features of construction, operation and arrangement of parts an example of which is given in this specification and illustrated in the accompanying drawings, wherein;

Figure 1 is a side elevation of the device partially in section.

Figure 2 is a horizontal sectional view taken on the line 2—2 of Figure 1, and,

Figure 3 is a plan view of the device.

Referring now more particularly to the drawings, wherein like numerals of reference designate similar parts in each of the figures the numeral 1 designates a base plate which is mounted on a suitable foundation 2. Opposing cylinders 3, 3 are anchored, at their upper ends, to said base plate and depend below the same, and similar opposing cylinders 4, 4 are anchored at their lower ends to said base plate and upstand therefrom. These respective cylinders have the plungers 5, 5 and 6, 6 which reciprocate therein. Secured to the upper ends of the plungers 5 there is a yoke 7 and secured to

the upper ends of the plungers 6 there is a yoke 8. These yokes are arranged at right angles to each other and have aligned upwardly flared openings 9 and 10, which are also aligned with a central opening 11 in the base plate. The pipe 12 to be pulled extends up through these openings. The openings 9 and 10 of the yokes are formed to receive the sectional wedge shaped slips 13 and 14 whose inner faces are serrated to engage with the pipe.

Entering the lower ends of the cylinders 3 are the pipes 15, 15, and entering the lower ends of the cylinders 4 are the pipes 16, 16. These pipes are connected to a suitable hydraulic pump (not shown). The fluid pressure is admitted through the pipes 15 and 16 alternatively by a suitable hand operated valve. When pressure is admitted through the pipes 15 the plungers 5 are forced upwardly and the slips 13 engage with and elevate the pipe to be pulled at the same time the pressure through the pipes 16 is relieved and the weight of the plungers 6, and yoke 8 carried thereby cause them to descend, the slips 14 automatically releasing from the pipe 12. Pressure now is through the pipe 16 and relieved from the pipes 15 thus elevating the plungers 6 and the yoke 8 carried thereby and the slips 14 will engage with and further elevate the pipe 12, the yoke 7 descending by gravity for a new hold on the pipe. This process is continued until the pipe to be pulled is withdrawn from the bore. As the pipe is withdrawn its sections are unscrewed and laid aside. Through this apparatus the pipe to be pulled can be quickly and expeditiously withdrawn from the bore.

What I claim is:

A pipe puller including a base plate, a foundation on which said plate is mounted, opposing cylinders anchored at their upper ends to said base plate, and depending below the same, similar opposing cylinders anchored at their lower ends to said base plate and upstanding therefrom, a plunger in the respective cylinders, yokes arranged at substantially right angles to each other, one yoke being connected to the plunger of the depending cylinder, and the other yoke being connected to the plunger of the upstanding cylinders, each yoke being provided with a central upwardly flared opening aligned with the central opening of the base plate

forming seats, wedge shaped slips having their inner faces serrated, said slips being mounted in the openings of the yokes, fluid pressure pipes entering the lower ends of the respective cylinders, and provided to admit fluid pressure into the depending cylinders and the upstanding cylinders alternatively.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

HOMER C. THRIFT.

Witnesses:

W. H. DUNLAY,
E. V. HARDWAY.