

J. H. Luther,
Drill Rod Grab.

No 56,961.

Patented Aug. 7, 1866.

Fig 1.

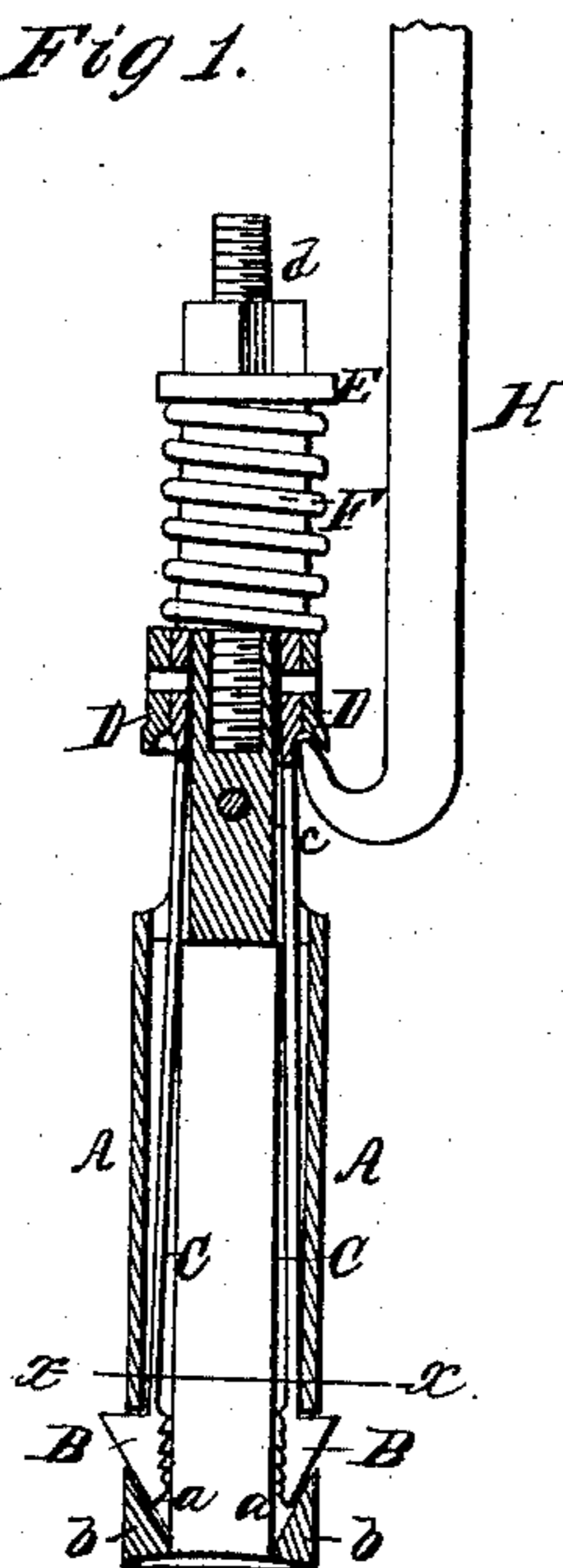
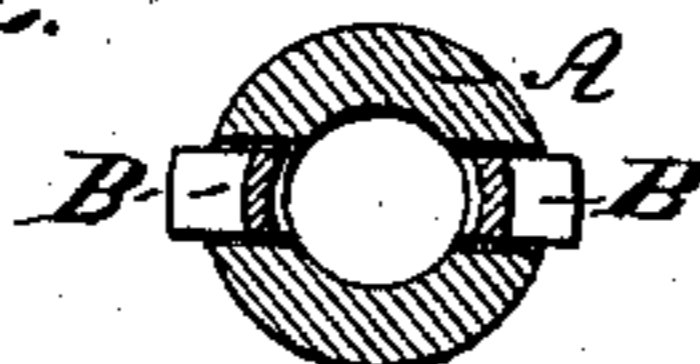


Fig 2.



Witnesses.

Gas A. Service
J. W. B. Livingston

Inventor.

J. H. Luther
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Atty

UNITED STATES PATENT OFFICE.

J. H. LUTHER, OF PETROLEUM CENTRE, PENNSYLVANIA.

IMPROVED GRAB-TOOL FOR OIL-WELLS.

Specification forming part of Letters Patent No. 56,961, dated August 7, 1866.

To all whom it may concern:

Be it known that I, J. H. LUTHER, of Petroleum Centre, Venango county, and State of Pennsylvania, have invented a new and Improved Grab; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification.

In the drilling of oil, Artesian, and other deep wells the drilling-tool often becomes fast in the well or bore, thus rendering it necessary to abandon the well, even when nearly completed.

To produce an implement by which the tool, when it has become fast in the well or bore, can be withdrawn from the same, is the object of the present invention, and by it a tool or "grab," as I term it, is produced with which the desired object can be effected, its peculiar construction also enabling it to be detached from the drill-tool in the well, if found so firmly fixed as to render it impossible to withdraw it without further loosening, by a spear or in any other suitable manner, thus avoiding the still further clogging of the well or bore by the addition of broken particles of the grab.

In the accompanying plate of drawings my improved grab is illustrated, Figure 1 being a central vertical section of the same; and Fig. 2, a transverse section taken in the plane of the line *x x*, Fig. 1.

Similar letters of reference indicate like parts.

A in the drawings represents a hollow wrought-iron cylinder or tube, with seats *a* formed upon its inside and extending in the direction of its length, which seats, at the lower end of the tube, are milled entirely through its thickness, with bevel or inclined faces *b*.

B are the grabs fitted to the faces *b* of the tube A, which grabs, by thin metallic strips or bands C, are connected to a common loose collar or ring, D, upon the outside or stems of the tube A, near its upper end, and resting upon projecting pins *c* of the same. Between this collar D and the shoulder E of the tube A a spiral spring, F, is coiled or wound, by means of which spring the collar is held to its seat upon the pins *c* and brought down upon the same, when, by any suitable means, it is raised or moved upward upon the tube. The inner faces of the grabs B are serrated or

toothed to prevent them from slipping when set upon the tool which they are to remove.

The stem of the tube, above its shoulder E, is provided with a screw-thread, *d*, for screwing or fastening the grab to a rod or other suitable device to enable it to be lowered into the well or bore from which a tool that is fast is to be removed.

In the use of the grab constructed as above explained and shown in the drawings, it is first screwed to one end of a rod of suitable length, whether made in sections or of one continuous piece or length, and by such rod lowered into the well, (the distance between the grab-jaws then being less than the size of the piece or tool which is fast in the well,) when, as soon as the tube A has reached the said piece or tool that is to be extracted, it is driven down over the same in any proper manner, thus forcing the grab-jaws up and outward through their seat-openings of the said tube until the said tube has been driven down as far as is considered necessary. It is then drawn up, its grab-jaws tightly pinching and holding the said tool, when, if satisfied such tool cannot thus be stirred, the grab is then to be detached and withdrawn from the well and the said tool then "speared," as it is termed, and by that means loosened in its seat in the well or bore, when the grab is again applied to it, as before, and so on until finally removed, the grab being detached from the tool in the well or bore by means of a hook, (shown at H in the drawings,) that, being lowered into the same and hooked on the under side or edge of the loose collar, enables such collar to be raised sufficiently to withdraw or free the grab-jaws from the drill-tool, as is obvious without any further explanation.

I claim as new and desire to secure by Letters Patent—

The grab herein described, the same consisting of the hollow cylinder or tube A, provided with grab-jaws B, connected to a common loose collar, D, and spiral spring, or its equivalent, when all constructed and connected together substantially as described, and for the purpose specified.

The above specification of my invention signed by me this 1st day of June, 1866.

J. H. LUTHER.

Witnesses:

JAMES STROWBRIDGE,
M. M. LOURDON.