W.S. Wilkinson,

Well Paching,

Patented Mar. 6, 1866. Nº 53,073. Fig. 3.

United States Patent Office.

WALTER S. WILKINSON, OF BALTIMORE, MARYLAND.

IMPROVEMENT IN PACKING FOR OIL-WELLS.

Specification forming part of Letters Patent No. 53,073, dated March 6, 1866.

To all whom it may concern:

Be it known that I, Walter S. Wilkinson, of the city of Baltimore, county of Baltimore, and State of Maryland, have invented Improved Packing for Oil-Wells; and I do hereby declare the following to be an exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, making a part of this specification.

The nature of my invention is in the construction of the packing-cylinder resting upon an expansion ring and tubing; also, the use of spring-catches to operate the cylinder.

Figure 1 represents a vertical section of an oil-well with its tubing and packing before having expanded the packing. Fig. 2 is a section of the same after the packing has been expanded in the manner set forth in the following description; and Fig. 3, a top view, showing vertical position of the spring-catches.

I propose packing Artesian, salt, or oil wells in the following manner: The expansion-ring D, made of brass or other metal, is placed upon the tubing K, so as to rest upon one of the couplings of the tubing or other bearing attached to the tubing. The lead packing-cylinder E, which is attached to the short iron cylinder F, rests upon this expansion-ring, as shown in the drawings. Another iron cylinder, H, which rests upon the pipe F, is used as a driver, and is operated by means of a cord attached to it at the eye I and leading up to the top of the well. After the tubing with the packing and fixtures attached has been lowered into the well to the point at which it is

desired to pack the well, the cord is used to raise the driver H a short distance, when it is allowed to fall upon the cylinder F, to which the lead packing is attached, and the operation is repeated until the packing becomes expanded against the interior or wall of the well, so as to form a joint at e, as shown at Fig. 2, which prevents the passage of the water, gas, oil, or water and oil mixed.

When it is desired to remove the tubing it is lowered until the spring-catches G G spring into their seat L in the pipe F, the friction of the lead packing-cylinder E against the wall of the well being sufficient to keep it in its position during this operation. The tubing is then drawn in the ordinary manner, the spring-catches G G serving to draw up the cylinder F with the packing E, and at the same time keep it free from the expansion-ring D.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The packing-cylinder E, of lead or other flexible substance, permanently attached to the cylinder F, adapted to be elevated, as described, resting upon the expansion-ring D and beneath the tubing to be operated by the driver H, substantially as set forth.

2. In combination with the foregoing, the spring-catches G G, as arranged in relation to the seat L to operate the packing-cylinder E, in the manner set forth.

W. S. WILKINSON.

Witnesses:

J. Franklin Reigart, Geo. H. Showacre.