K. KUGLER.

TEMPER-SCREW FOR ARTESIAN WELLS.

No. 188,251. Patented March 13, 1877.

Fig. 1.

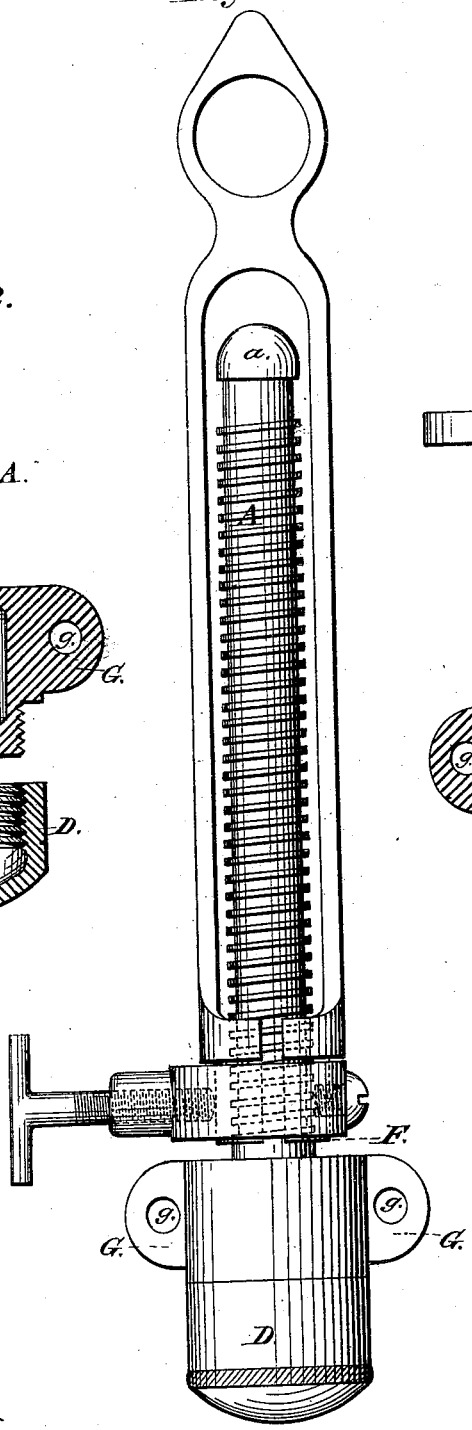


Fig. 2.

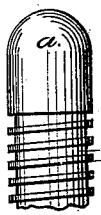


Fig. 3.

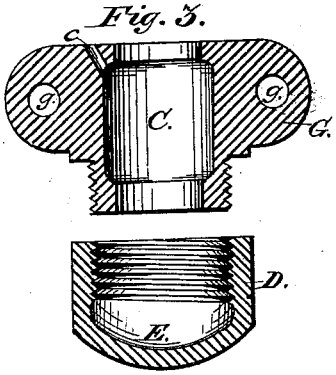


Fig. 4.

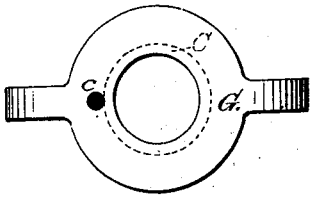
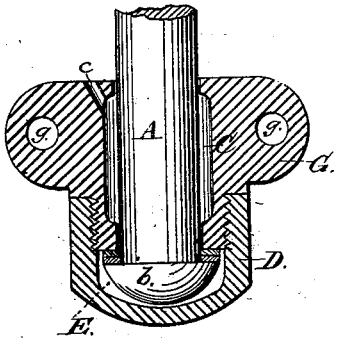


Fig. 5.



Witnesses:
Levi Bacon
D. R. Lowe

Inventor:
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by
James C. Boyce
his Atty.

UNITED STATES PATENT OFFICE.

KASPER KUGLER, OF OIL CITY, PENNSYLVANIA.

IMPROVEMENT IN TEMPER-SCREWS FOR ARTESIAN WELLS.

Specification forming part of Letters Patent No. **188,251**, dated March 13, 1877; application filed January 12, 1877.

To all whom it may concern:

Be it known that I, KASPER KUGLER, of Oil City, Venango county, Pennsylvania, have invented a new and useful Improvement in Temper-Screws for Artesian Wells, which is fully set forth in the following specification, reference being had to the accompanying drawing.

Figure 1 is a representation of a temper-screw with my improvement thereon. The other figures are details of the invention.

In the temper-screw as at present made, the swivel at its lower end gets dry and cuts, and sometimes sticks, so that it cannot be readily turned. There is danger, too, when drilling an Artesian well, that the screw may get entirely run out and drop into the well.

Both of these defects are obviated by my invention. Instead of continuing the thread to the very end at *a*, I discontinue the thread, and leave the upper end blank, as shown at *a*. A channel or annular groove may be cut between the termination of the thread and the blank *a*. Said blank *a* is, in circumference, the same as the outside of the screw A. No matter how rapidly or carelessly the screw A may be run out, it is obvious that the blank *a* cannot pass through the divided nut F, when the latter is simply opened far enough to allow only a rotation of the screw A. The upper end may be finished, as shown at Fig. 2. On the lower end of the screw I make the head *b*. The clamp-carrier G is provided with holes *g g*, in which are inserted the links or hooks by which the clamps are supported. In the carrier I make the oil-chamber C, with its oil-hole *c*. Between G and *b* may be inserted, if desired, one, two, or more rings or washers. The lower part of G is threaded, as shown, so that the cap D may be screwed on, and thus a cup formed below G for the reception of oil from the chamber C, and thus the swivel at the lower end of the screw can always be provided with lubricants.

What I claim as my invention is—

1. A self-lubricating swivel for the lower end of a temper-screw, substantially as described.

2. The combination of the clamp-carrier G with the screw A, head *b*, and cap D, the clamp-carrier G provided with an oil-chamber, C, with its oil-hole *c*, and with or without washers between said G and the head *b*, said clamp-carrier G being arranged to turn freely upon the base of the screw A, substantially as described.

3. In the clamp-carrier of the temper-screw, the oil-chamber C, with its oil-hole, substantially as described.

4. In the swivel of a temper-screw, the cap D, to surround and cover the lower end of the screw in such a manner as to form below it the cup E, substantially as described.

KASPER KUGLER.

Witnesses:

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JAMES C. BOYCE.