## UNITED STATES PATENT OFFICE.

RUSSEL S. BARNUM, OF CHICAGO, ILL., ASSIGNOR TO HARRY C. GOODRICH, OF SAME PLACE.

## IMPROVEMENT IN SET-SCREWS.

Specification forming part of Letters Patent No. 181,763, dated September 5, 1876; application filed July 27, 1876.

To all whom it may concern:

Be it known that I, Russel S. Barnum, of the city of Chicago, Cook county, State of Illinois, have invented a new and useful Improvement in Set-Screws, of which the following is a full description, reference being had to the accompanying drawings, in which—

Figure 1 is an elevation, showing the screw proper and the washer separated; Fig. 2, an elevation, a part being in section, representing the parts together; Fig. 3, a detail, showing the head in section.

This invention relates to that class of setscrews which have a loose washer; and it consists in a new mode of constructing the washer and holding it in place.

In the drawings, a represents the head of the screw, which is provided with a chamber or recess, b, at the lower end. The head may be made solid and the chamber made therein afterward. c is the screw proper, which is secured to the head in any suitable manner. d is a washer, the upper end of which is adapted to enter the chamber b in the head, and

this portion is provided with a neck or contraction, e. The hole through the washer is large enough to permit it to pass over the screw e.

The smaller portion of the washer d is inserted into the chamber b, and the edge of the wall of the chamber is then turned down into the neck e, in such a manner that the head and screw can turn without turning the washer. By this means the washer is held in its place.

I am aware that set-screws have been made with washers connected therewith, and do not claim, broadly, such a device: but

claim, broadly, such a device; but
What I do claim as new, and desire to secure by Letters Patent, is as follows:

A set-screw the head a of which is provided with a chamber, b, in combination with a loose washer, d, having a neck, e, into which the edge of the chamber is turned, substantially as specified.

RUSSEL S. BARNUM.

Witnesses:

E. A. WEST, O. W. BOND.

## R. S. BARNUM.

SET-SCREWS.

No. 181,763.

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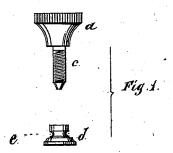




Fig.2.

Fig. 3.



Witnesses: Hunrich F. Bruns Owby

Inventor:

Russel S. Barmin