E. A. WOOD.

Steam Pressure Gage.

No. 45,786. Patented Jan. 3, 1865.

Fig. 1.

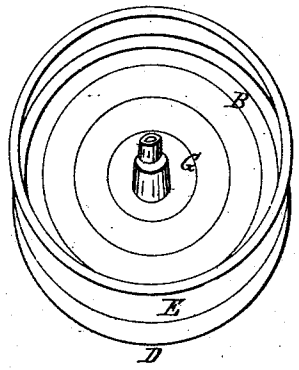
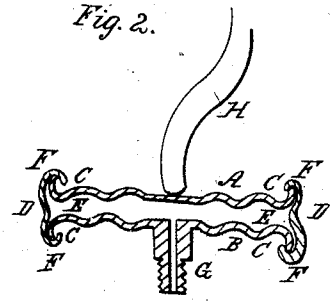


Fig. 2.



Witnesses:

A. Dagnell

James F. Mecum

Inventor:

Edwin A Wood

UNITED STATES PATENT OFFICE.

EDWIN A. WOOD, OF UTICA, NEW YORK.

STEAM-PRESSURE GAGE.

Specification forming part of Letters Patent No. **45,786**, dated January 3, 1865.

To all whom it may concern:

Be it known that I, EDWIN A. WOOD, of the city of Utica, county of Oneida, and State of New York, have invented a new and useful Improvement in Springs for Steam-Pressure Gages, of which the following is a specification.

The nature of my invention consists in so forming and arranging the parts of the spring that they may be put together readily and cheaply, and that when in use there shall be no strain upon the joints to cause them to work loose; and I do hereby declare that the following is a full and exact description of my invention, reference being had to the accompanying drawings, and to the letters of reference marked thereon, in which—

Figure 1 is a perspective view of the under side of the spring with the stem attached, and Fig. 2 a sectional view of the spring.

A is the upper disk; B, the lower one; C, the flanges therein; D, the surrounding ring; E, the bead therein; F, the edge of the ring D turned over the flanges C. G is the stem, and H the bent lever.

The disks A and B are concentrically corrugated, alike in size and form, with flanges turned up on the periphery, and are swaged from sheet-brass or other suitable material. The flanges or edges are turned up at right angles, and are of about a sixth of an inch in depth. The ring D is of proper size to fit the disks, and is made of sheet-brass or other suitable metal, and is soldered or brazed, and may have a bead, E, sunk around its periphery, to give elasticity to it, and serves as a bearing or support to the disks. The stem G is for connecting the spring with the steam-pipe, and is attached securely and steam-tight to one of the disks, and the two are slipped into the ring D—one on each side of the bead E—with their flanges turned outward, and the edges of the ring are then turned down with a burnisher or other proper tool to a close joint, which is made steam-tight with soft solder or by other suitable means. The bent lever H, which gives motion to the index, rests with its short end on the upper surface of the upper disk.

The advantages of this improved method of making these springs are, the ready and cheap manner in which they may be made, the greater elasticity which is given to them, and the almost impossibility of the joints ever working loose.

Instead of using the ring D, one of the disks may be of larger size and have a deeper flange, and the smaller disk may be placed inside of the larger one, both flanges being in the same direction, when the larger flange may be lapped over the smaller one, and thus the same form of joint is secured as when the ring is used; and where the bead E is not used a ring of proper width may be placed inside of the ring D to keep the disks apart, or this may be effected by any other proper contrivance, and the disks may be plain, instead of being corrugated.

I claim—

The combination of the disks A and B and the ring D, or their equivalents, constructed and operating substantially as described for the uses and purposes.

EDWIN A. WOOD.

Witnesses:

A. DAGWELL,

JAMES F. MANN.