

R. TIPPETT.
Man-Hole Lids for Boilers.

No. 137,806.

Patented April 15, 1873.

Fig. 1.

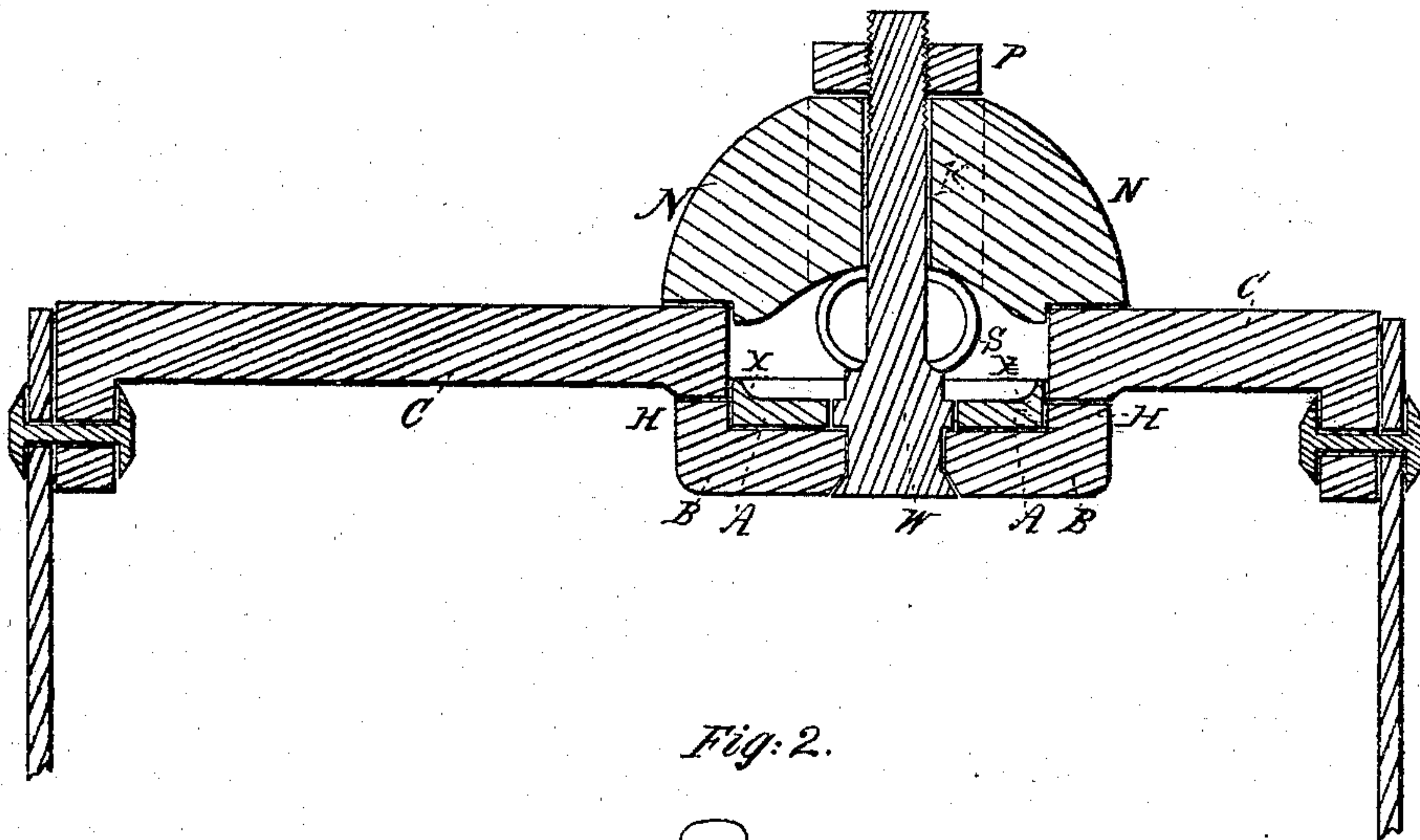
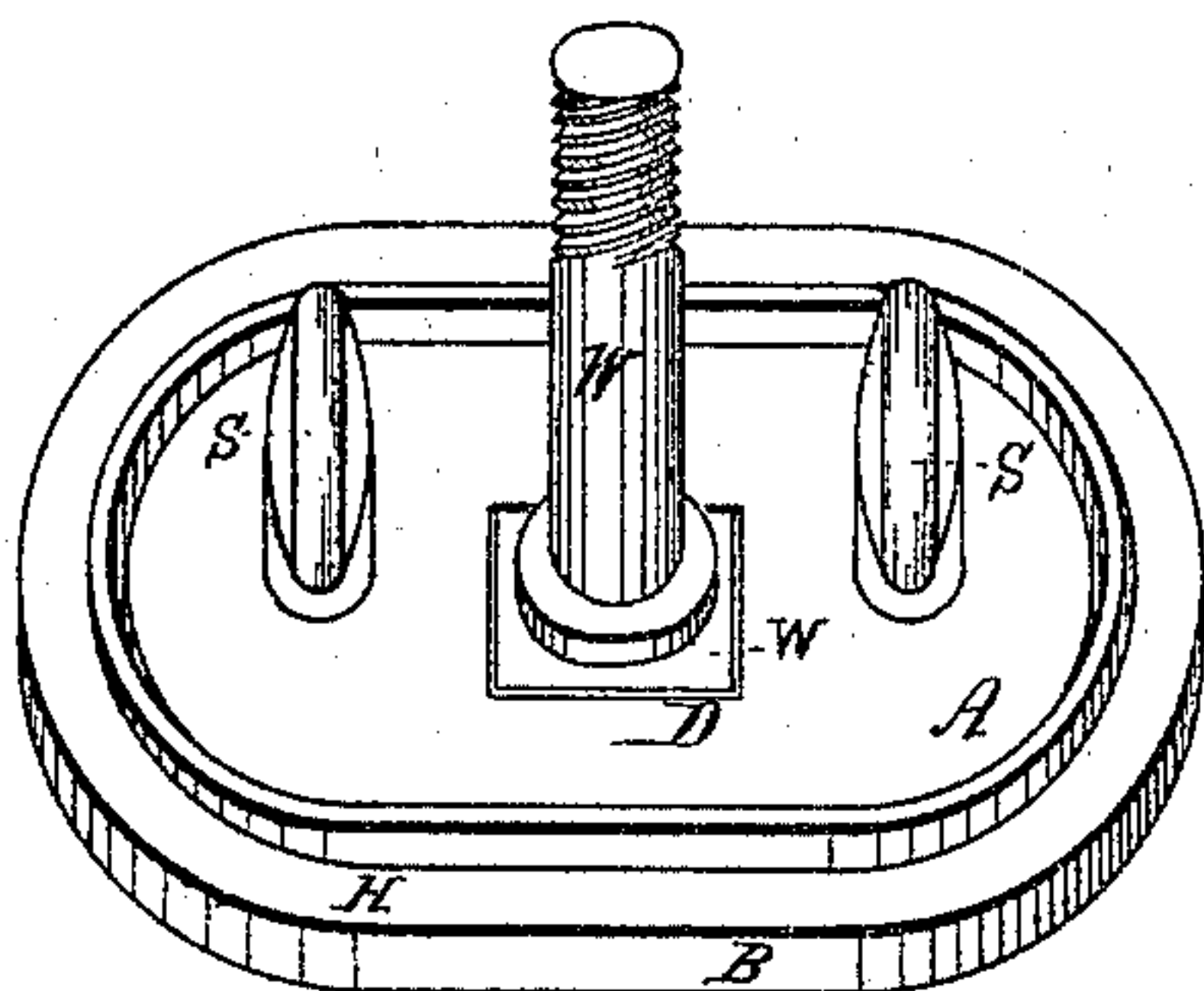


Fig. 2.



Witnesses
Theophilus Weaver
Peter Stuckey

Inventor
Robert Tippet

UNITED STATES PATENT OFFICE.

ROBERT TIPPETT, OF HARRISBURG, PENNSYLVANIA.

IMPROVEMENT IN MAN-HOLE LIDS FOR BOILERS.

Specification forming part of Letters Patent No. 137,806, dated April 15, 1873; application filed January 17, 1873.

To all whom it may concern:

Be it known that I, ROBERT TIPPETT, of the city of Harrisburg, county of Dauphin and State of Pennsylvania, have invented an Improved Man-Hole Lid for Steam-Boilers, of which the following is a specification:

The nature of my invention consists in a sectional lid, of which the lid proper, and the guiding-flange to keep the lid rightly imposed on the man-hole, are made of two or more parts, to facilitate the labor of planing or dressing off their surfaces to make the lid steam-tight.

In the accompanying drawing making a part of this specification, Figure 1 is a vertical section of the boiler-head made by a plane passing through the transverse diameter of the man-hole therein. Fig. 2 is a perspective view of the sectional man-hole lid detached from the yoke.

Similar letters refer to similar parts in the description.

C represents the boiler-head; A B, the sections of the man-hole lid; W, the man-hole bolt; N N K, the yoke; P, the nut for drawing the lid shut; S, the handles to manipulate the lid while being applied to its seat. The head C has a swell or bench about the man-hole, planed on the face next the man-hole lid. Said lid proper, B, is made dished or recessed on the side next the yoke, and its rim forms a tread, H, which is planed, and its contour conforms to the bench about the opening in head C. To facilitate planing or dressing the said tread H of the lid B, the flange X is made detachable by making it as the rim of a tray-form plate, A, which is removable from lid B, in the recess of which it snugly fits, while its rim projects out of the recess enough to form the standard or flange X, whose contour also conforms to the aperture in head C. The said standard X is the complement of the rabbet-joint, and serves to keep the lid B rightly located when drawn to its seat by the bolt W, yoke N N K, and nut P. The part A is bolted to part B, as shown in Fig. 5, by the shanks of the handle S, which are made terret form,

with socket and screw-shank at their bases, the screw being made to engage plate B through plate A loosely, and thus tightly compress the sections previous to applying the lid to close the aperture.

The advantages of this improved lid will be observed when it is noted that the apertures or man-holes in boilers are made in form of long ovals, thus conforming to neither the ellipse nor the circle, and the lid and its parts are made conformably, so that the work of planing the margin or tread of the lid on the outside of a fixed flange or rabbet cannot be done by an ordinary lathe, and only in part by a planer, thus not only leaving certain parts to be chipped away by hand and file-dressed, but also running a constant risk of irregular cut by the planer by the shifting of the body to be planed. Tedious and expensive work thus often results in ill-fitted lids, and gaskets must be applied to remedy the defects, which soon impair in use.

By my improved lid the surfaces can be accurately and speedily dressed on a lathe or planer, with no hand-dressing, and the gasket can be dispensed with, as a thin layer of paper, cloth, or red lead is found to answer the purpose effectually.

I do not limit myself to the use of two sections of the lid, as the flange section may be indefinitely subdivided, causing the flanges to consist merely of studs or sections, which may be removable, but

I claim—

1. The detachable rabbet-plate A, or its equivalent, in combination with the man-hole lid B, the parts being applied substantially as and for the purpose herein set forth.

2. The combination of the yoke N K, the lid B, rabbet-plate A, handles S, and bolt W, all constructed and arranged to operate substantially as and for the purpose herein set forth.

ROBERT TIPPETT.

Witnesses:

THEOPHILUS WEAVER,
PETER S. TUCKER.