

(No Model.)

L. TRAPP.
HEAD OR COVER FOR CYLINDERS.

No. 423,291.

Patented Mar. 11, 1890.

Fig. 1.

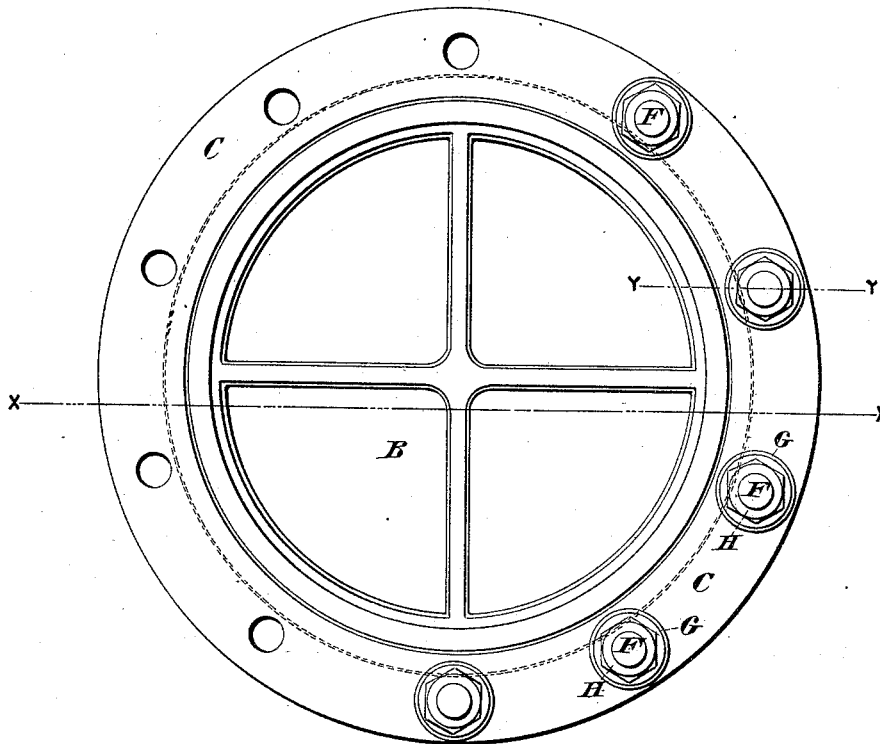


Fig. 2.

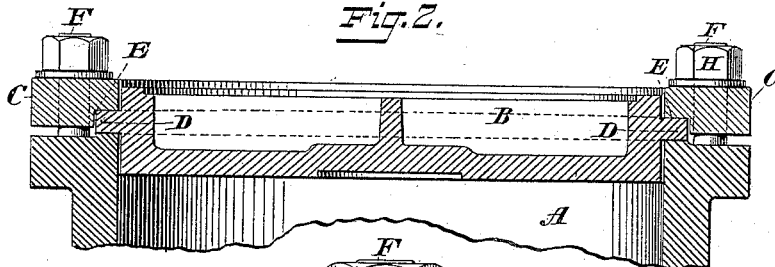
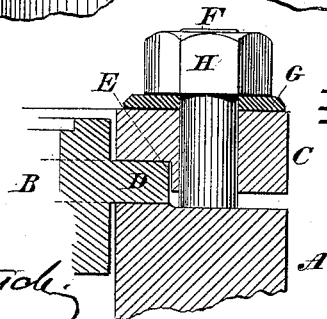


Fig. 3.



WITNESSES:
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LUDWIG TRAPP, OF GÖTTINGEN, GERMANY.

HEAD OR COVER FOR CYLINDERS.

SPECIFICATION forming part of Letters Patent No. 423,291, dated March 11, 1890.

Application filed June 1, 1889. Serial No. 312,878. (No model.)

To all whom it may concern:

Be it known that I, LUDWIG TRAPP, a subject of the Emperor of Germany, and a resident of Göttingen, Germany, have invented certain new and useful Improvements in Heads or Covers for Cylinders; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same.

The invention relates to improvements in heads or covers for cylinders; and its object is to produce a cover which may be quickly applied and firmly secured in position upon the cylinder, and which in case of accident—such as the blowing out of the head—will leave the cylinder without fracture.

The objects of the invention, together with the details of construction, will be fully understood from the description hereinafter presented, reference being had to the accompanying drawings, in which—

Figure 1 is a plan view of the end of a cylinder with the head applied. Fig. 2 is a section of same on the dotted line X X of Fig. 1, and Fig. 3 is a section on the dotted line Y Y of Fig. 1.

In the drawings, A designates the cylinder, B the cover applied thereto, and C a frame or ring between which and the end of the cylinder the cover A is secured. The head or cover A is of proper size to fit within the end of the cylinder, as illustrated in Fig. 2, and is provided with the laterally-extending annular rim D, which rests upon the inner edges of the cylinder and is there secured by the encompassing frame or ring C, the latter being provided with the recesses E to fit upon the said rim D. The frame or ring C is also provided with apertures to receive the stud-bolts F, which are seated in the cylinder and project outward a suitable distance to extend through the said frame C and receive the washers G and nuts H. The facing-surfaces of the rim D and end of the cylinder A will form a "ground joint," in order to render the cylinder perfectly secure when the frame C and nuts H are applied.

The invention is particularly applicable as a head or cover for steam, water, gas, and air cylinders, which require a perfectly tight-fitting head or cover, and its utility for such purposes is greatly enhanced by the convenience with which the cover may be removed and replaced in case of necessity, or a new cover applied in instances where one in use has become broken. In cases of accidental breakage of the cover constructed in accordance with the invention the damage will be confined to the cover alone, and not result in injury to the cylinder, since the thickness of the rim D is less than the thickness of the main body of the head B. In the arrangement of steam-cylinders and their heads at present in use the cylinder is frequently fractured by not screwing the bolts for the head with perfect evenness or by such accidents as the blowing out of the heads, and both of these difficulties are obviated by the present invention, which enables the ready application of the head without extreme care as to the screwing home of the nuts H, and confines the damage in case of the blowing out of the head to the latter alone, since the rim D in such instance would break away, leaving the bolts and the cylinder intact and in condition to at once receive another cover, which could be applied by the engineer without difficulty.

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

The cylinder-head B, fitting within the walls of the cylinder A and having the annular rim D resting on the inner edges of the end of said cylinder and being less in thickness than the main body of the said head, combined with the open frame C, fitting around the outer or exposed portion of said head and having the recess E at its inner lower edge to receive the said rim D, and having also the bolt-holes beyond said recess to receive the bolts, substantially as and for the purposes set forth.

LUDWIG TRAPP.

Witnesses:

OTTO TRAPP,
JEAN GRUND.