

No. 846,475.

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S. HOSKING.
PEEP SIGHT FOR TWYER STOCKS.
APPLICATION FILED NOV. 8, 1906.

Fig. 2.

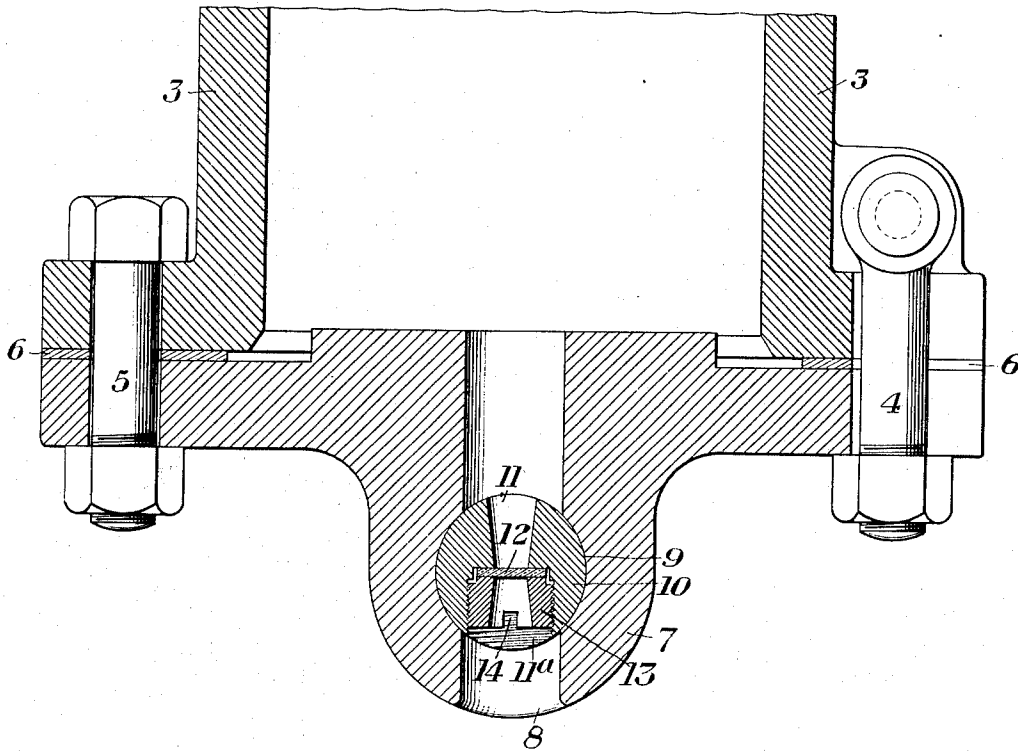
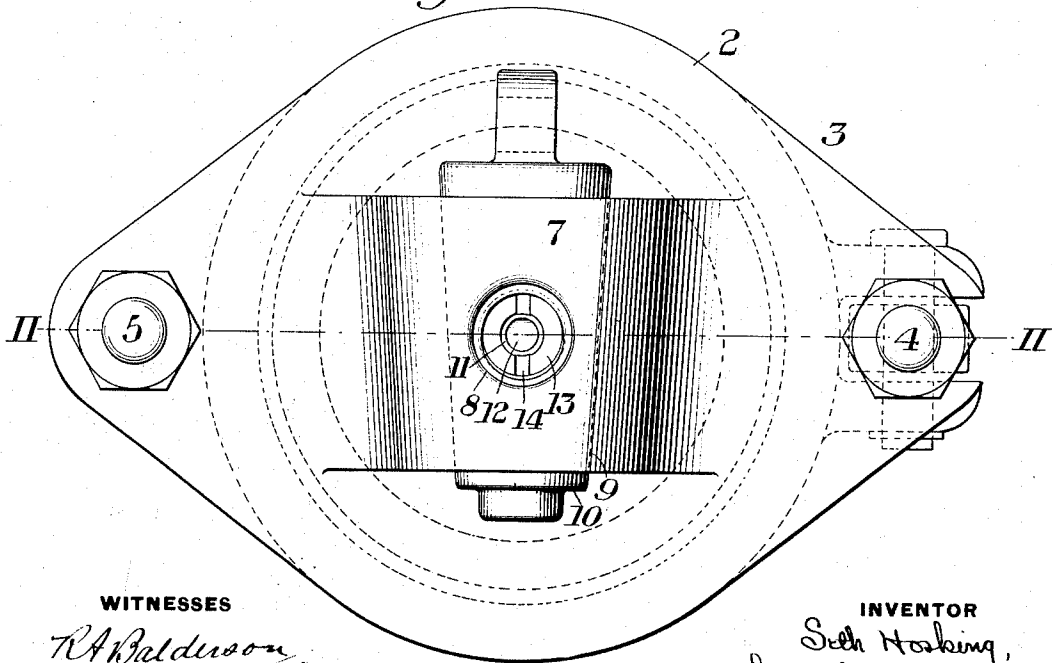


Fig. 1.



WITNESSES

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UNITED STATES PATENT OFFICE.

SETH HOSKING, OF WHEELING, WEST VIRGINIA, ASSIGNOR TO NATIONAL TUBE COMPANY, OF PITTSBURG, PENNSYLVANIA, A CORPORATION OF NEW JERSEY.

PEEP-SIGHT FOR TWYER-STOCKS.

No. 846,475.

Specification of Letters Patent.

Patented March 12, 1907.

Application filed November 8, 1906. Serial No. 342,486.

To all whom it may concern:

Be it known that I, SETH HOSKING, of Wheeling, Ohio county, West Virginia, have invented a new and useful Improvement in Peep-Sights for Twyer-Stocks, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part of this specification, in which—

Figure 1 is a front elevation of a flange for a twyer-stock provided with my improvement; and Fig. 2 is a sectional view on the line II II of Fig. 1, showing the improved peep-sight in place on the branch of the furnace twyer-stock.

My invention relates to apparatus used in connection with blast-furnaces, and it particularly relates to the apparatus used on the blast-furnace twyer-stocks by which the condition of the interior of the furnaces is observed.

The object of my invention is to provide improved means for attaching the peep-sights to the twyer-stocks and means for securing the glass used with the peep-sights so that they can be easily and quickly removed and replaced.

It also consists in the novel construction and arrangement of the parts, in the use of which the glass in the peep-sight may be cleaned and any dust or other obstructions in front of the glass in the peep-sights can be readily removed.

A further object of my invention is to provide improved means whereby leakage of the blast through the peep-sight connections is prevented and in providing means by the use of which the plug in which the glass of the peep-sight is secured can be removed and replaced without the necessity of stopping the operation of the furnace by shutting off the blast.

In the drawings, 2 represents the flange on one of the twyer-stocks, this flange, as shown, being secured to the flanged branch 3 of the twyer-stock by means of the bolts 4 and 5. A gasket 6, of asbestos or other suitable material, is placed between the faces of the flange and branch. The flange 2 is provided with an outwardly-extending lug or boss 7, and an opening 8, through which the interior of the furnace is seen, extends through both the flange 2 and boss 7. The boss 7 is also

provided with an opening 9, having its axis perpendicular to that of the opening 8. The opening 8 is tapered, and a correspondingly-tapered plug 10 is fitted into the opening 9. The plug 10 is also provided with an opening 11, having a recessed portion 11^a, into which a circular glass 12 is fitted, this glass being retained in place by means of the threaded ring or collar 13, which is screwed into the recess 11^a, this recess being provided with corresponding threads. To facilitate the removal and replacing of this collar, it is provided with the slots 14, into which a screw-driver or other tool is inserted.

When the parts are assembled as shown in the drawings, the condition of the interior of the furnace in the vicinity of the different twyers to which the twyer-stocks are attached can be seen by looking through the glass 12 in the plug 10. As the hot blast is conducted to the furnace through the twyer-stocks dust or dirt carried by the blast is liable to settle in the openings in the plug 10 and flange 2 and obstruct the line of sight through the glass and twyer-stock. When this occurs and it becomes necessary to remove these obstructions, this is accomplished by lifting the plug 10 from its seat in the boss and permitting the blast to blow outwardly through the opening 7, carrying with it the collected dirt or dust. When the inner face of the glass 12 becomes obscured, the plug 12 is rotated so as to bring this surface outward, when the glass may be wiped off or otherwise cleaned and the plug again turned in its seat into its former position. When for any reason it becomes necessary to remove one of the plugs, this can be easily and quickly done by simply lifting the plug from its seat and replacing it by another.

The advantages of my invention will be apparent to those skilled in the art. The peep-sight can be readily cleaned, and the plug may be easily removed and replaced without the necessity of stopping the operation of the furnace. By the use of the plug containing the glass ample surface can be provided to prevent the possibility of leakage through the joint made between surfaces of the plug and the opening in which it is placed.

Modifications in the construction and location of the parts may be made without departing from my invention, since

What I claim is—

1. A peep-sight for furnace twyer-stocks comprising a flange having a boss thereon, a taper opening through the boss, a plug extending through the taper opening, an opening extending through the boss and flange, an opening through the plug, a glass centrally located lengthwise of the opening in the plug, said plug being adapted to be rotated through
10 at least one hundred and eighty degrees in the taper opening; substantially as described.

2. A peep-sight for furnace twyer-stocks comprising a flange having a boss thereon, a taper opening through the boss, a removable

plug extending through the taper opening, 15 an opening extending through the boss and flange, an opening through the plug, a glass centrally located lengthwise of the opening in the plug, said plug being adapted to be rotated through at least one hundred and 20 eighty degrees in the taper opening; substantially as described.

In testimony whereof I have hereunto set my hand.

SETH HOSKING.

Witnesses:

HENRY B. NICHOLS,
JOSEPH E. BROWN.