

No. 826,676.

PATENTED JULY 24, 1906.

J. MAGEE.  
ATTACHMENT FOR HEATERS.  
APPLICATION FILED JUNE 5, 1906.

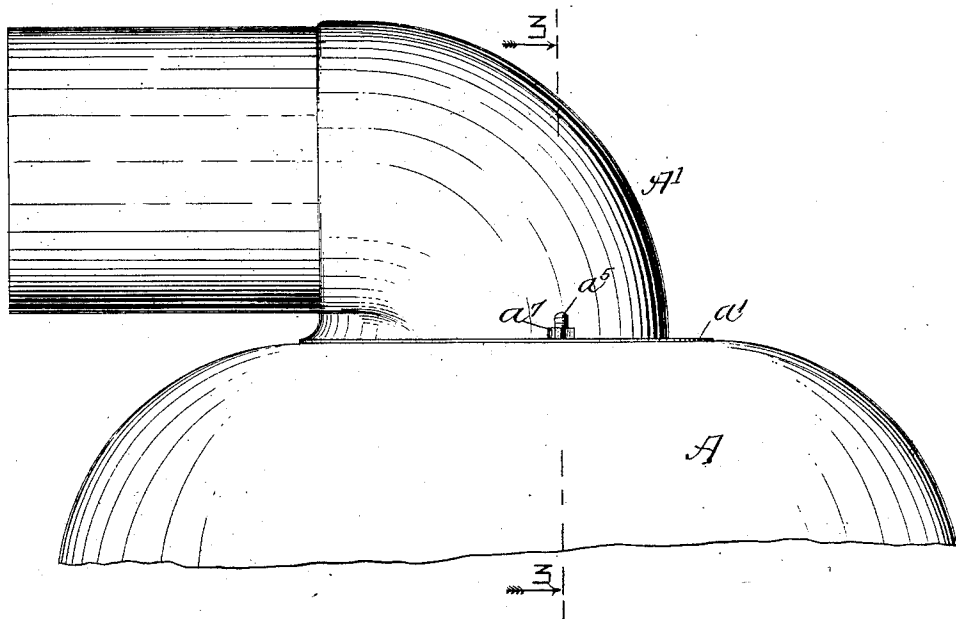


Fig. 1.

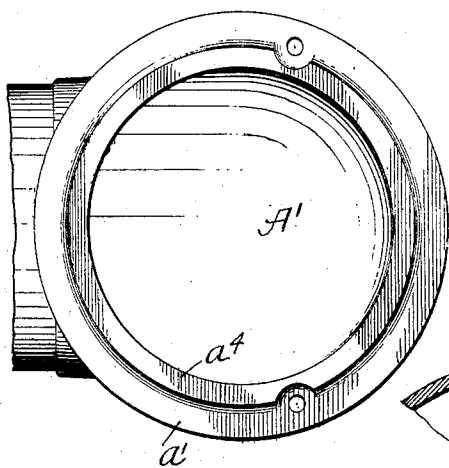


Fig. 2.

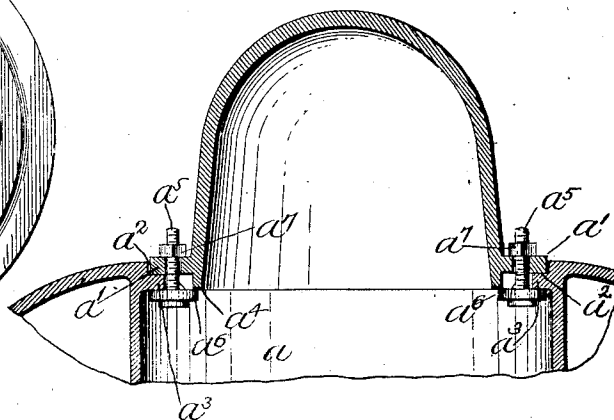


Fig. 3.

WITNESSES:

R. C. Brewer  
M. V. Foley

INVENTOR:

John Magee  
By *Charles Raymond Book*  
his attorney.

# UNITED STATES PATENT OFFICE.

JOHN MAGEE, OF WINCHESTER, MASSACHUSETTS, ASSIGNOR TO MAGEE FURNACE COMPANY, OF BOSTON, MASSACHUSETTS, A CORPORATION OF MASSACHUSETTS.

## ATTACHMENT FOR HEATERS.

No. 826,676.

Specification of Letters Patent.

Patented July 24, 1906.

Application filed June 5, 1905. Serial No. 263,745.

*To all whom it may concern:*

Be it known that I, JOHN MAGEE, a citizen of the United States, residing at Winchester, in the county of Middlesex and State of Massachusetts, have invented a new and useful Improvement in Attachments for Heaters, 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 explaining its nature.

My invention relates to an improvement in attachments for heaters, and especially to that form of heater having a water-holding dome through which a smoke or flue pipe is adapted to extend and exit through a smoke hole or opening in the top of the dome.

Inasmuch as the direction of the extension or continuation of the smoke-pipe from the dome of the heater may vary, depending upon the relative position of the heater with respect to some auxiliary pipe or passage, it is very desirable that the dome of the heater be provided with some means or attachment by which a direct connection may quickly and easily be made irrespective of the relative position of the heater with regard to such auxiliary pipe or passage.

The present invention accordingly consists in providing the heater with such means or attachment, my especial object being to provide a means simple in its construction and easy in its adjustment and mode of operation.

In the drawings, Figure 1 shows a portion of a heater fitted with my improved attachment inside elevation. Fig. 2 shows the bottom portion of the elbow attachment in plan. Fig. 3 shows a cross-section on line 3 3 of Fig. 1.

Referring to the drawings, A represents a portion of the dome of a furnace or heater. Through this extends a smoke or flue pipe  $a$ , which exits through a hole or opening in the top of the dome. For continuing in any lateral direction the passage of the smoke or flue pipe  $a$  outside the dome I have provided an attachment taking the form of an elbow  $A'$ . This attachment or elbow at the end where it unites with the dome of the heater is provided with an annular flange  $a'$ , which

fits into an annular socket  $a^2$ , formed around the said hole or opening in the top of the dome, and rests upon the annular locking edge  $a^3$ , forming the said hole or opening. On the under side of the flange is an annular bead  $a^4$ , which when the elbow is seated fits just inside the locking edge  $a^3$  and in alignment therewith. This depending bead or flange  $a^4$  coöperates with the locking edge  $a^3$  to form a two-part bearing for the inner ends of the dome retaining or locking devices, and this feature, as will appear, is an important point of my invention. Thus seated it is evident that the elbow  $A'$  may turn so as to point in any lateral direction with respect to the heater or dome, or, in other words, in such direction that it may make the most direct and easy connection with any auxiliary pipe or passage through which the products of combustion are to pass.

Unless some means be provided for holding the elbow in place while resting upon its flanged end in the socket  $a^2$  or while being turned its natural tendency will be to become overbalanced, and so to topple or fall over. For the purpose of holding the elbow thus in place while being turned and also for clamping or holding it permanently in place fixed or locked to the top of the dome after being turned to a proper position I have provided the following means: There is provided on the side of the elbow away from the direction of its turning one or more bolts or screws  $a^5$ , each of which carries upon its end a locking disk or washer  $a^6$ . There are shown in the drawings two of these bolts, which is the number I prefer to use; but in so far as the purpose of my invention is concerned one bolt and locking-disk may as well be used. I shall accordingly describe but one. The bolt  $a^5$  is passed up to project through the annular flange  $a'$  of the elbow between the locking edge  $a^3$  of the dome on the outside and the annular bead  $a^4$  of the elbow, where it is held in place by the nut  $a^7$  on the end of the bolt projecting through the annular flange  $a'$  of the elbow, as before described. These disks may thus be brought beneath the locking edge of the dome by being slid sidewise under the same when the flange of the elbow is sock-

eted or seated, for, as before described, the bolts or disks are located only upon one side of the elbow, so that before the nut  $a^7$  is tightened the locking disk or disks may readily be slid into place.

With the parts thus located the locking-disk acts to hold the elbow in place with the following mode of operation, depending as the locking-nut  $a^7$  holds the locking-disk  $a^6$  tightly or loosely in conjunction with the parts  $a^3$   $a^4$ , with the under sides of which it is adapted to engage. When the nut through the connecting-bolt is holding the disk loosely, it then admits of the elbow being turned. At the same time the interference of the disk with the locking edge of the dome is sufficient to keep the elbow from toppling or falling over, for, as before described, the locking-disk is on that side of the elbow away from the direction in which it is turned and so holds the elbow in place at just the proper point to counteract any tendency on its part to topple or fall over. The elbow can accordingly be turned on the dome without the necessity of holding it manually in place during the operation of its turning. After it has been turned to a position for the proper connection to be made the elbow may then be clamped or locked in place simply by tightening the nut  $a^7$ , which binds the flanged edge  $a'$  of the elbow fast to the locking edge  $a^3$  of the dome. When tightened, the flange  $a^4$  coacts with the flange  $a^3$  to maintain the disks  $a^6$  in perfectly horizontal position, thus permitting the bolts to squarely engage the dome, whereby the joints are made tight and the locking secured.

With respect to the specific mode of fastening it may be noted that it is easily accessible to be operated from a point outside the dome and the elbow may be turned or removed after simply loosening the nut  $a^7$ . The locking disk, bolt, and nut are so located as not to interfere with the free turning of the elbow, and when the elbow is removed these parts are removed with it intact.

Among the advantages arising from the use of the attachment may be noted the fact that collars and all other projections from the dome liable to become broken are entirely dispensed with. The annular flange of the elbow is socketed so as to be practically flush with the top of the dome. The means of fastening also is for the most part entirely concealed, so that the attachment when in place presents the appearance of a smooth and attractive fixture.

Having thus fully described my invention, I claim and desire to secure by Letters Patent of the United States—

1. A heater having a smoke hole or opening therein, the periphery of which forms an annular locking edge, a rotatable elbow attachment having an annular flange adapted to rest upon said locking edge of the heater, and having a depending bead adapted to fit within said locking edge and to be spaced a slight distance therefrom, said elbow-flange carrying a bolt or screw extending through the same and then between the locking edge and the bead aforesaid, and having a retaining-disk at its inner end, said depending bead and the under side of said locking edge coacting to form a two-part bearing for said disk, whereby the bolt or screw is held in true position and the elbow-joint made tight when the bolt or screw is tightened, and means above the flange aforesaid for tightening said bolt or screw, whereby upon partially tightening the same, the elbow may be retained in position to be turned or, upon fully tightening the same, the elbow may be held locked or clamped in any desired fixed position.

2. A heater having a smoke hole or opening therein, the periphery of which opening is formed to comprise an annular locking edge and an annular socket above said locking edge, a rotatable elbow attachment having an annular flange adapted to fit within said socket and to rest upon said locking edge, said elbow having an annular depending bead adapted to fit within said locking edge and be spaced a slight distance therefrom, said elbow-flange carrying a bolt or screw extending through the same and between said locking edge and depending bead and having a retaining-disk at its inner end, said depending bead and the under side of said locking edge coacting to form a two-part bearing for said disk, whereby said bolt or screw is held in true position and the elbow-joint made tight when the bolt or screw is tightened, and means above the flange aforesaid for tightening said bolt or screw, whereby upon partially tightening the same the elbow may be retained in position to be turned, or, upon fully tightening the same, the elbow may be held locked or clamped in any desired fixed position.

JOHN MAGEE.

In presence of—

REGINALD HAZELTINE,  
D. M. O'BRIEN.