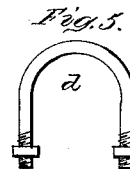
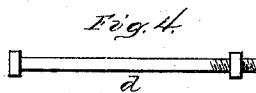
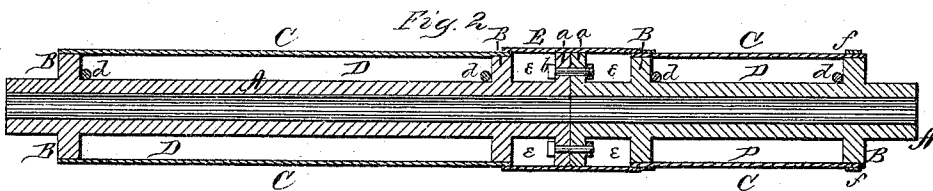
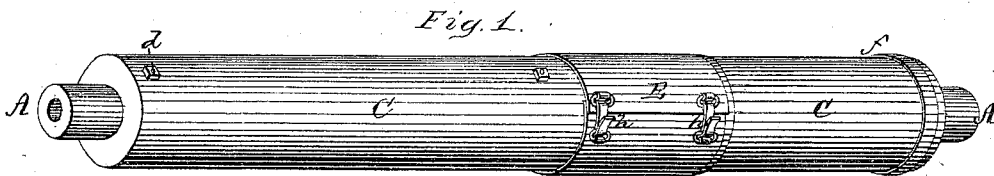


C. M. O'HARA.

Coverings for Steam and other Pipes.

No. 139,968.

Patented June 17, 1873.



Witness:
John A. Ellis
And H. Ellis

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Attorneys.

UNITED STATES PATENT OFFICE.

CHARLES M. O'HARA, OF FALL RIVER, MASSACHUSETTS.

IMPROVEMENT IN COVERINGS FOR STEAM AND OTHER PIPES.

Specification forming part of Letters Patent No. **139,968**, dated June 17, 1873; application filed December 12, 1872.

To all whom it may concern:

Be it known that I, CHARLES M. O'HARA, of Fall River, in the county of Bristol and State of Massachusetts, have invented certain new and useful Improvements in Covering Steam and other Pipes; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

My invention relates to the manner of constructing a jacket of sheet-iron or other suitable material, and adjusting the same on steam and other pipes, the said jacket being adjusted to the pipe in such a manner that a space or interval is formed for the reception of a non-conducting filling or lining of sifted ashes, thereby preventing radiation and loss of heat from the surfaces of said pipes.

In order to enable others skilled in the art to which my invention appertains to make and use the same I will now proceed to describe its construction and operation, referring to the annexed drawing, in which—

Figure 1 is a perspective view; and Fig. 2, a longitudinal section of my invention. Figs. 3, 4, and 5 show bolts used to hold the jacket on the pipe.

A A represent two sections of pipe provided at their ends with flanges, *a*, through which bolts, *b*, pass to connect or unite the two sections together. A suitable distance from each end of each section of the pipe and upon the same is placed a disk, B, of cement, metal, or other suitable material. Similar disks may also be placed at intervals along each section for the purpose of preserving the shape of the jacket or casing, and also for preserving a uniform distance between said jacket and the pipe. C represents the jacket or casing, which may be made of metal, wood, or other suitable material, and of any form desired. It extends from the disk B at one

end of each section to the disk at the other end of the same section, leaving a space, *e*, at each end of the pipe uncovered, and forming a space or chamber, D, along its entire length between it and the pipe. The jacket is held by means of bolts *d*, which may be of any of the forms shown in Figs. 3, 4, and 5, and should rest on the pipe as shown in Fig. 2. Bands *f* are placed around the exterior of the jacket to confine it properly in shape. E represents a belt of sheet-iron to cover and inclose the spaces *e e* at each joint, said belt being fastened by means of lead straps *h h* passing through loops as shows in Fig. 1, so that said belt can readily be removed and access had to the joints in the event of leakage, without deranging the jacket or casing.

The spaces *e e* are left of such width that the bolts *b* may be withdrawn and replaced without disarranging the casing.

When the jacket *c* is made of iron it should be painted on both sides, to prevent the action of rust.

The space or chamber D between the pipe and jacket is filled with dry ashes as a non-conducting filling or lining, and to prevent the same from leaking through the joints or seams of the casing, said seams or joints are filled with a cement composed of finely sifted ashes and silicate of soda or other silicate.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

The belt E with straps *h* for covering the joints and forming the connection between the casings of two adjoining sections of pipe, substantially as herein set forth.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

CHARLES M. O'HARA.

Witnesses:

WALTER O'HARA,
BENJ. K. LOVATT.