

No. 896,171.

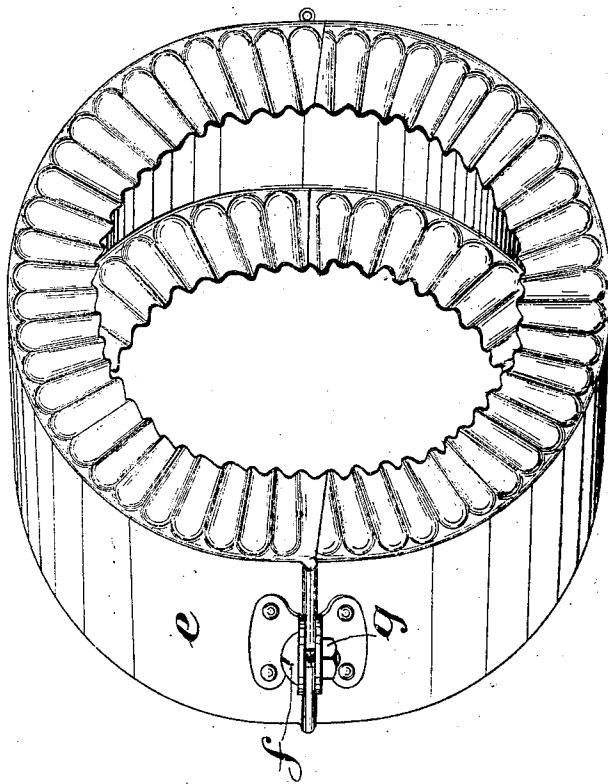
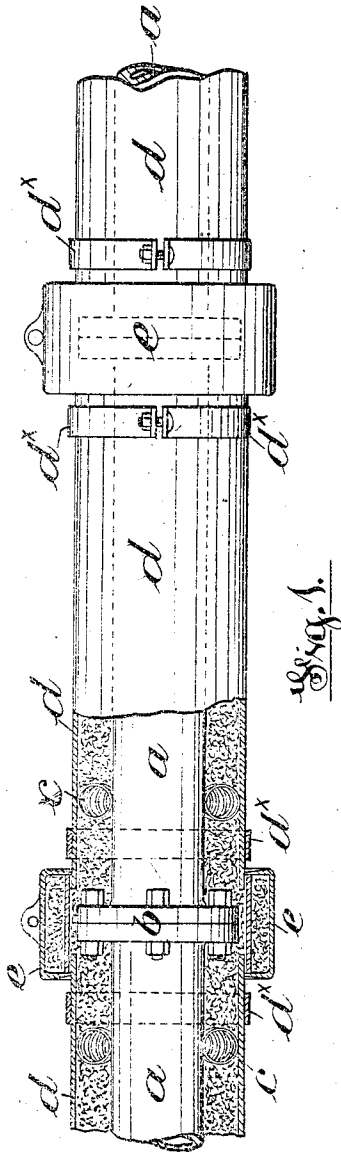
PATENTED AUG. 18, 1908.

W. I. SUTCLIFFE.

MEANS FOR COVERING STEAM PIPES, CYLINDERS, &c.

APPLICATION FILED SEPT. 18, 1905.

2 SHEETS—SHEET 1.



Witnesses:
John Camp
J. D. B. [unclear]

Inventor
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By his Attorney:—
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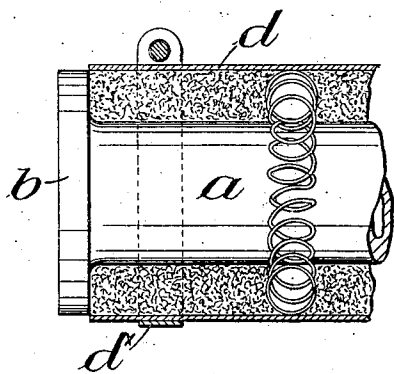


Fig. 5.

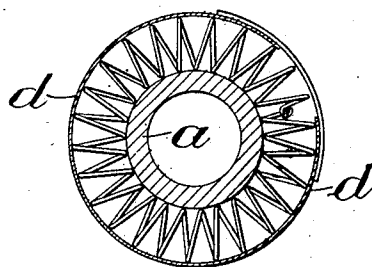


Fig. 6.

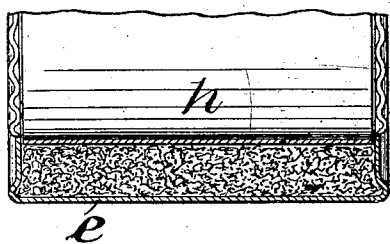


Fig. 3.

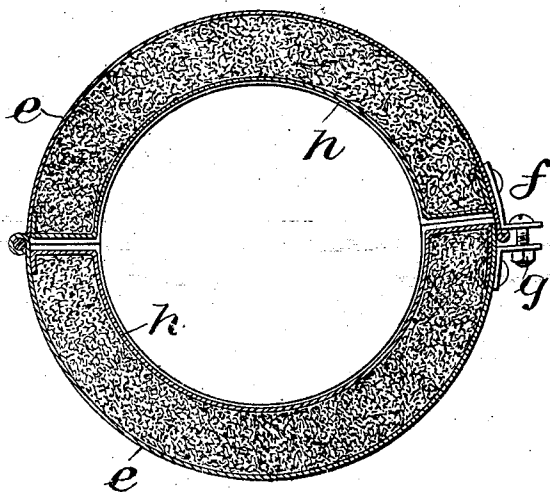


Fig. 4.

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UNITED STATES PATENT OFFICE.

WALTON INGHAM SUTCLIFFE, OF GODLEY, NEAR MANCHESTER, ENGLAND.

MEANS FOR COVERING STEAM-PIPES, CYLINDERS, &c.

No. 896,171.

Specification of Letters Patent.

Patented Aug. 18, 1908.

Application filed September 18, 1905. Serial No. 279,060.

To all whom it may concern;

Be it known that I, WALTON INGHAM SUTCLIFFE, a subject of the King of Great Britain and Ireland, resident of Godley, near Manchester, England, have invented Improved Means for Covering Steam-Pipes, Cylinders, and the Like, of which the following is a specification.

This invention refers to heat non-conducting coverings for steam pipes, cylinders and the like, and consists of certain novel constructions of covers by which in the case of flanged pipes both the flanges as well as the main lengths of the pipes are covered.

Upon the accompanying drawings Figure 1 illustrates a length of steam piping with the improved coverings applied thereto, these latter being shown partly in section and partly in elevation. Fig. 2 illustrates to a larger scale the outer shell or casing of the cover used for covering in the pipe flanges. Fig. 3 illustrates a longitudinal section of the complete flange cover, and Fig. 4 illustrates a transverse section (in part) of such cover. Figs. 5 and 6 illustrate longitudinal and transverse sectional elevations.

Referring to Fig. 1,—(a) is the steam pipe with flanges (b). Encircling the pipe (a), at suitable distances apart, are two (or more) hoops or rings (c). Around the hoops thus made and applied is placed a sheet metal covering (d), by preference, in two longitudinal parts, whereof one extends about two thirds the way around the hoops, and the other is equal to rather more than the remaining third of the circumference of the hoops, see Fig. 6, so that when put together the two parts shall entirely inclose the pipe and hoops. Into the space between the said covering and pipe and prior to the smaller part of the covering being placed in position, slag wool or like non-conducting material is introduced, see Fig. 1. With the smaller part of the cover then applied, divided clamping bands (d') are applied, and, by means of nuts and bolts, the two parts of the cover are held firmly in position around the hoops.

The covering for the flanges of the pipes consists of a cylindrical metal casing (e) with turned-in ends, see Fig. 2, and made in two half parts, hinged to each other along one edge, and fastened by a bolt (f) and nut (g) on the other edge. Each half part is made from one piece of sheet metal, the two turned-in ends being produced by simulta-

neously curving, turning in and crimping the metal. The object of thus making the cover is twofold, first, it is to cheapen the cost of making, and secondly to produce a covering which is very strong and durable and is considerably elastic circumferentially and thus well adapted to fit objects of slightly varying formation. A further object is to give the ends a broad, instead of a sharp edge. Within each half part of such casing is (or may be) a liner (h), see Figs. 3 and 4, and in the space between it and the casing is a filling of slag wool or like heat non-conducting material. The ends of each liner are cranked, and each liner is secured to the outer casing by such ends only, so that the liner shall be free to give and take or spring with the outer casing. The flange covering thus formed is placed around the pipe flanges as shown in Fig. 1, the crimped ends lying against the outer face of the pipe covering (d), and the free ends of the two parts of the covering being fastened to each other by the bolt (f) and nut (g).

The crimped ends of the two parts of the casing and free ends of the casing overlap, see Figs. 2 and 4, and thus allows the casing to fit around pipe coverings of slightly varying diameter.

The improved crimped ended flange cover may be applied to the covering in of T-pipes, branches and valves.

In applying the invention to the covering of cylinders, the casing (e) is omitted, and the hoops (c), casing (d) and bands (d') made to a larger scale are alone used. The hoops c are made of coiled spring wire, the diameter of the coils being equal to the width of the space desired between the pipe and covering and the length being such as to cause it to encircle the pipe, as shown in Fig. 6, and cling thereto. At its ends the wire is formed as hooks, so that on being applied to a pipe the ends may engage and thus hold the wire to the pipe. This improved coiled wire hoop may be applied to cylinders as well as pipes.

What I claim is:—

1. In heat non-conducting coverings for steam pipes and their flanges, sheet metal casings in two longitudinal parts; annular collars composed of lengths of coiled wire encircling the pipes and lying between the pipes and said casings whereby the casings are held away from and concentric to the pipes; a heat non-conducting material in the

spaces between the pipes and casings; clamping rings for encircling the casings; and means for tightening the rings on to the casings; cylindrical casings, each in two parts and with the opposite ends of such parts turned inwards and crimped, lying around the pipe flanges and against the pipe casings; and means for fastening them in position, substantially as set forth.

10 2. A sheet metal cylindrical casing in two parts, and each part formed in one piece and with its ends turned inwards and crimped, a

liner within each part cranked and held at each end, a heat non-conducting material in the space between the liner and casing, and means for securing the two parts of the casing together, substantially as set forth.

In witness whereof I have hereunto set my hand in the presence of two witnesses.

WALTON INGHAM SUTCLIFFE.

Witnesses:

JOHN CAMP,
REGINALD HULME.