No. 754,256. PATENTED MAR. 8, 1904.

M. SULLIVAN.

PIPE COVERING.

APPLICATION FILED AUG. 3, 1903.

NO MODEL.

Fig. 1.

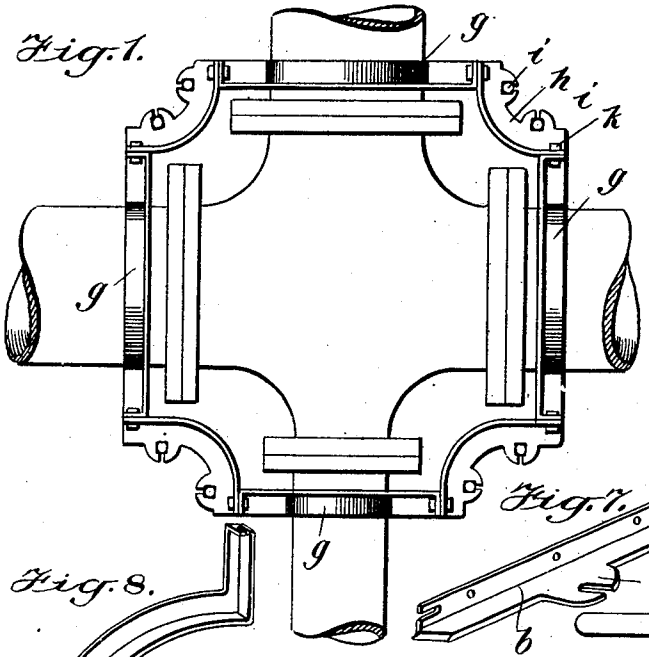


Fig. 2.

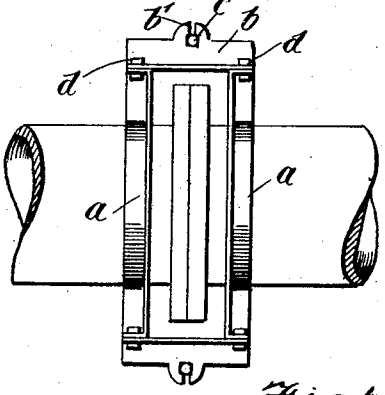


Fig. 8.

Fig. 7.

Fig. 6

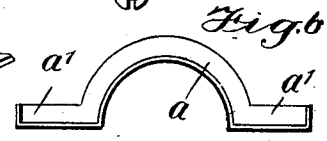


Fig. 3.

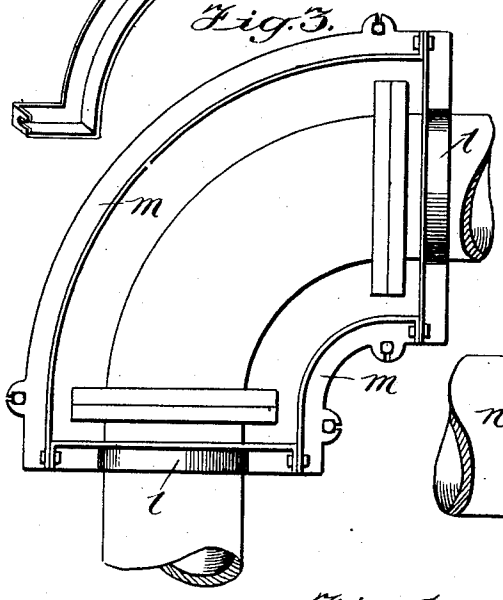


Fig. 4.

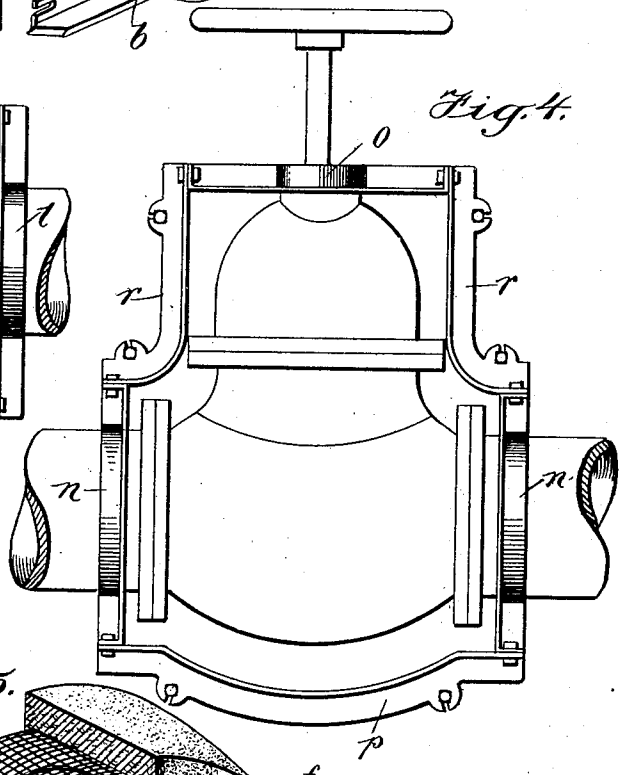
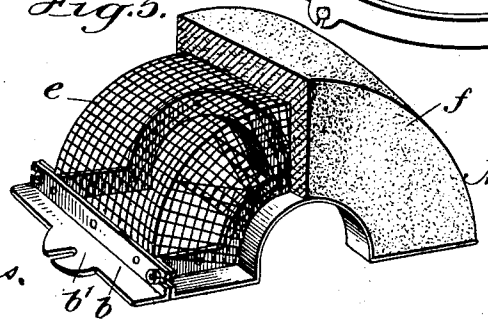


Fig. 5.



WITNESSES:

Geo. W. Naylor.

Isaac B. Owens.

INVENTOR

Maurice Sullivan

BY Munn & Co

ATTORNEYS

No. 754,256. Patented March 8, 1904.

UNITED STATES PATENT OFFICE.

MAURICE SULLIVAN, OF NEW YORK, N. Y.

PIPE-COVERING.

SPECIFICATION forming part of Letters Patent No. 754,256, dated March 8, 1904.

Application filed August 3, 1903. Serial No. 168,012. (No model.)

To all whom it may concern:

Be it known that I, MAURICE SULLIVAN, a citizen of the United States, and a resident of the city of New York, borough of Brooklyn, in the county of Kings and State of New York, have invented new and useful Improvements in Pipe-Coverings, of which the following is a full, clear, and exact description.

This invention relates to coverings for various forms of connections between steam and other piping—for example, to coverings for simple connections, flanged elbows, T's, bosses, valves, &c. The covering is intended to be applied particularly to joints between pipes which themselves have a non-conducting covering, and comprises a sectional frame arranged to be clamped on the pipe-sections and to inclose the joint or connection, this frame supporting a gauze or foraminated shield which itself carries the asbestos or other compound forming the non-conducting covering.

This specification is a specific description of one form of my invention, while the claims are definitions of the actual scope thereof.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is an elevational view of a cross or four-way pipe connection with the frame of my improved covering applied thereto. Fig. 2 is a side elevation of a simple joint, showing the frame of my improved covering applied. Fig. 3 is an elevational view of an elbow connection, showing the frame of my improved covering applied. Fig. 4 is an elevational view of a valve or gate having the frame of my covering applied. Fig. 5 is a fragmentary perspective view showing parts of the frame, shield, and covering proper; and Figs. 6, 7, and 8 are detail views illustrating the various parts of the framing.

The simplest form of the invention is illustrated in Fig. 2, in which two clamps are provided, one on each side of the joint. Each clamp is formed of two sections such as shown in Fig. 6, these sections comprising a semicircular body part *a*, with ends *a'* projecting therefrom. Said sections are formed, preferably, of cast metal angular in cross-sectional form. The two sections of the clamp are made to embrace the pipe, with their end portions *a'* lying alongside of each other, thus forming the clamp, and the two clamps are formed by longitudinal members each formed of two sections *b*, such as shown in Fig. 7. These sections consist of metal cast in angle-iron form and laid side by side. Each section is provided with an upwardly-extending lug *b'*, formed with a slot or recess, through which is passed a fastening-bolt *c*, thus connecting the two sections rigidly together and forming the longitudinal connecting member. Said members are fastened to the clamps by means of bolts *d*, located at the ends of the longitudinal connecting members.

Fig. 5 shows one half of the structure above described, the other half being the same as shown in Fig. 5 and being bolted thereto through the medium of the bolts *c* and lugs *b'*, as before described. Fastened to each of the members *a* and *b* is a semicircular shield *e*, of woven wire or similar material, which is formed so that it incloses the pipe-joint. On this shield is molded by any suitable means the asbestos or other non-conducting covering *f*. It will thus be seen that when the framing is fastened in place as shown, said framing having the shield *e* and covering *f* previously applied thereto, a complete non-conducting covering is provided for the joint. This enables the pipe-covering proper to be placed on the pipe and abutted against the sides of the joint-covering, thus forming a complete covering for the pipe and its joints.

By means of this improvement the covering for the joint may be removed at any time by disconnecting the bolt *c* without in any way disturbing the covering of the other parts of the pipe. This enables the joint to be reached at will, and it avoids what has heretofore been frequently necessary—namely, the destruction of the entire pipe-covering simply to reach the joint or other connection in the pipe.

It is obvious that the framing of my improved covering may be changed in form to suit any sort of pipe connection without de-

parting from the spirit of my invention. Three examples of these possible modifications are given in Figs. 1, 3, and 4.

Fig. 1 shows a four-way connection to each branch of the pipe of which a clamp *g* is applied. These clamps are essentially the same as the clamps *a* before described. Said clamps are joined together in the cruciform arrangement shown by means of longitudinal connecting-bars formed of two sections *h*, angular in cross-section and fastened rigidly together by bolts *i*. The ends of the respective connecting members *h* are fastened by bolts *k* to the ends of the respective clamps *g*. This forms a rigid frame, over which a shield similar to the shield *e*, but varying in shape to fit the peculiar connection, may be applied, this shield in turn carrying the non-conducting covering similar to the covering *f*.

Fig. 3 shows the invention applied to an elbow connection which is not different essentially from the other forms of the invention. In this view *l* indicates the two clamps which are applied to the respective parts of the pipe and which are similar to the clamps in Fig. 2. Said clamps are connected by longitudinal connecting members *m*, similar to the connecting members *b* and *h* excepting that the members *m* follow the contour of the elbow-joint. The frame thus supported will carry the shield and covering, as before described.

Fig. 4 shows the application of my covering to a valve casing and head which forms the connection between two sections of the pipe. To such sections of the pipe are applied clamps *n*, similar to the clamps before described, and to the crown or head of the valve is applied a clamp *o*. Said clamps *n* are connected together at the bottom of the valve by means of a connecting member *p*, similar to the members *b*, *h*, and *m*, but shaped to correspond with the bottom of the valve. The frame *a* has its ends, respectively, in connection with the upper ends of the frame *n* by means of connecting members *r*, which are constructed in sections the same as the connecting members previously described and are shaped to correspond with the general form of the valve-casing.

In all constructions of the framing it forms the support or framework of a covering which is independent of the covering of the pipe-sections themselves and which snugly and completely covers the entire connection, so that the connection-cover may be removed at will without disturbing the covering of the pipe.

Various changes in the form, proportions, and minor details of the invention may be resorted to at will without departing from the spirit and scope thereof. Hence I consider myself entitled to all such variations of the invention as may lie within the scope of my claims.

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

1. A pipe-covering comprising a frame formed of clamps and connecting members therefor, said clamps being capable of embracing the pipe-sections, a shield applied to the frame, and a covering proper applied to the shield.

2. A covering for pipes comprising two clamps, longitudinal connecting members extending between them, a shield applied to the connecting members, and a covering proper applied to the shield.

3. A covering comprising clamps, longitudinal connecting members joining them together, said clamps and connecting members constituting a frame, and a covering proper applied to said frame.

4. A covering comprising clamps formed of two sections, adapted to embrace the structure to which the covering is applied, connecting members joining said clamps together, said clamps and connecting members constituting a frame, and a covering proper applied to the said frame.

5. A covering comprising a frame formed of clamps made in two sections fastened together, to embrace the structure to which the covering is applied and longitudinal connecting members also formed in two sections fastened together and extending between and connecting said clamps, and a covering proper applied to the frame.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

MAURICE SULLIVAN.

Witnesses:
ISAAC B. OWENS,
JNO. M. RITTER.