

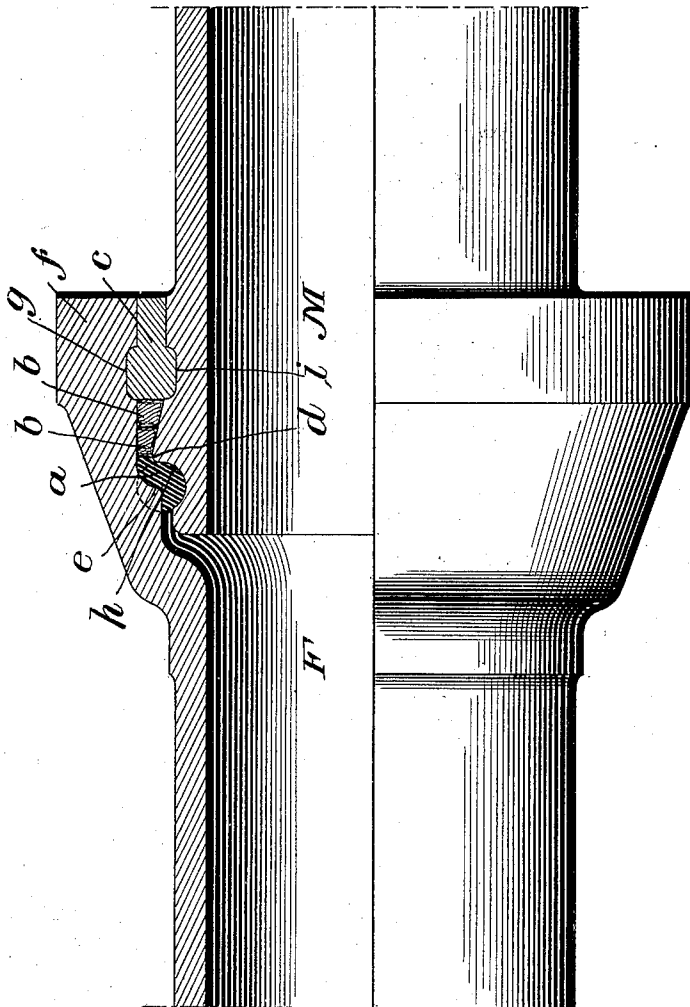
No. 747,061.

PATENTED DEC. 15, 1903.

J. P. GILBERT.
PIPE JOINT.

APPLICATION FILED APR. 11, 1903.

NO MODEL.



Witnesses

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UNITED STATES PATENT OFFICE.

JULES PROSPER GILBERT, OF TOUL, FRANCE.

PIPE-JOINT.

SPECIFICATION forming part of Letters Patent No. 747,061, dated December 15, 1903.

Application filed April 11, 1903. Serial No. 152,259. (No model.)

To all whom it may concern:

Be it known that I, JULES PROSPER GILBERT, a citizen of the French Republic, residing at Toul, Meurthe-et-Moselle, France, have invented certain new and useful Improvements in Pipe-Joints, of which the following is a specification.

My invention relates to improvements in pipe-joints; and the object of my invention is to produce a rubber-packed joint, the parts of the pipe being further held together by a key of lead or similar material which will set and harden.

The object of my invention is to produce a simple and inexpensive pipe-joint which shall possess all of the advantages of those now in use and at the same time obviate their disadvantages.

With these objects in view my invention consists in the construction and combinations of parts, as hereinafter described and claimed.

In the accompanying drawing the figure represents my improved pipe-joint, shown partly in elevation and partly in section.

F represents the socket member, which is provided with the enlargement *f*. Within this enlargement is a shoulder *e* and a groove *g*. Except for the groove *g* the interior of the part *f* is composed of two cylinders parallel to each other.

M represents the spigot end, which is provided with a groove *h*, forming an arc of a circle and terminating in the shoulder *d*. This shoulder is the largest part of the spigot member. This spigot member is also provided with a groove *i*, arranged opposite to the groove *g*. The grooves *g* and *i* may be made as shown or of any desired form. Between the shoulder *d* and the groove *i* the spigot member M is contracted. In assembling the pipe a ring *a*, of vulcanized rubber, is slipped around the end of the member M into the groove *h*. The member M is then slipped into the end of the member F, and by means of the shoulders *d* and *e* the ring is compressed into the form shown in the figure.

b represents a filling of tarred tow or hemp, which is driven into contact with the rubber *a* by a chisel or tool and completely fills the space between the members F and M up to

the point where the grooves *g* and *i* begin. Molten lead or some similar material is then run in to form the key *c*. For this purpose the circumference of the joint is fitted with a ring or collar of plastic clay, in which a small funnel is formed at the upper part, and the lead is poured in so as to completely fill the grooves *g* and *i* and form a complete key.

The members F and M may be made of any desired material—such as iron, stoneware, terra-cotta, earthenware, cement, &c.—and of any suitable size.

The sections of the rubber ring and of the key may be made circular, oval, square, or rectangular. The key *c* can be made of lead, asphalt, cement, or any other material which may set or harden.

The filling of tarred tow or hemp has for its main object to prevent injury to the rubber when the melted lead or other similar material for the key is run in. To facilitate the running of the key, a hole can be made above the same in the corresponding part of the socket.

My improved pipe-joint combines the advantages of rubber, tarred tow, and lead in a single joint without the use of bolts and lugs. The rubber is perfectly protected from the earth by the lead seal and the tarred tow or hemp cannot get into the pipe and give a disagreeable taste to the water therein. Before the running in of the lead key the joint is sufficiently flexible to permit pipes of ordinary length to be moved or adjusted to slight changes of direction without having recourse to special bends or elbows.

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

1. In a pipe-joint, the combination of the pipe members, with a rubber packing, a lead key and a packing separating said previously-mentioned packings, substantially as described.

2. In a pipe-joint, the combination with the pipe members, of a rubber packing, a lead key, and a packing of tarred tow or hemp between said rubber and said lead, substantially as described.

3. In a pipe-joint, the combination of pipe

members each provided with a shoulder and
a groove, a rubber ring between said shoul-
ders, a lead key run into said grooves, and a
packing of tarred tow or hemp between said
5 rubber ring and said lead key, substantially
as described.

In testimony whereof I have hereunto set

my hand in presence of two subscribing wit-
nesses.

JULES PROSPER GILBERT.

Witnesses:

GEORGE E. LIGHT,
JOHN BAKER.