Myers & Thomas.

Tapping Mains.

No. 24,949. Patented Aug. 2, 1859.

Fig: 1.

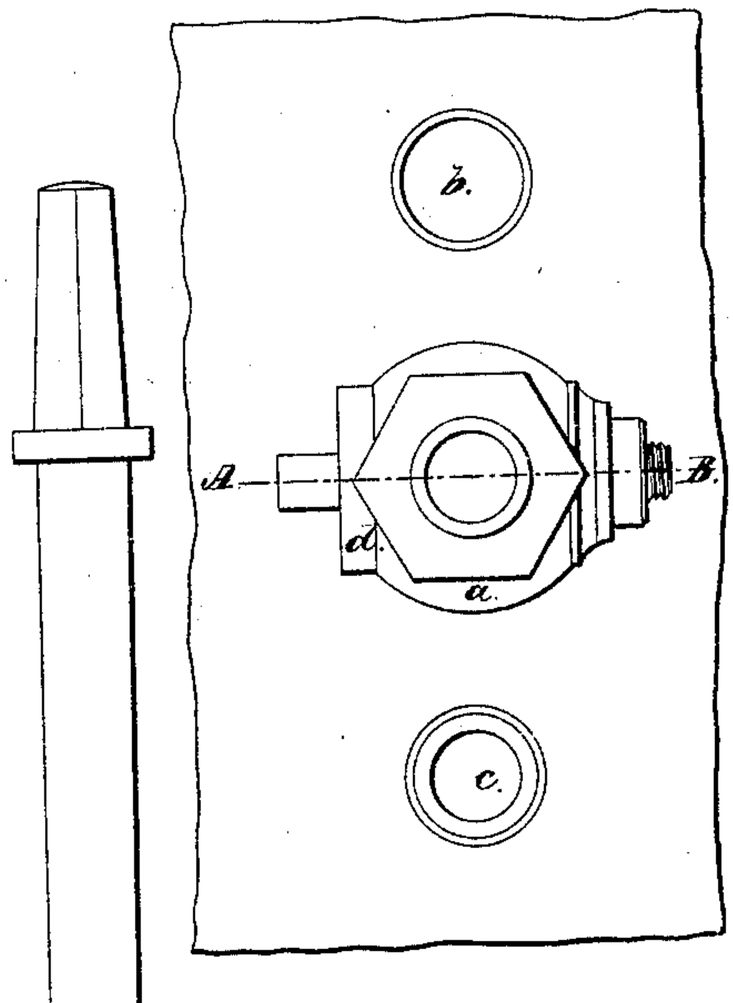

Fig: 3.

Fig: 2.

Witnesses:
W. A. Mueller
W. L. Smallwood

Inventor:
Edwd. J. D'Myers C E
Charles F. Thomas M. E

UNITED STATES PATENT OFFICE.

E. T. D. MYERS AND C. F. THOMAS, OF WASHINGTON, DISTRICT OF COLUMBIA.

APPARATUS FOR TAPPING WATER OR GAS MAINS.

Specification of Letters Patent No. 24,949, dated August 2, 1859.

To all whom it may concern:

Be it known that we, EDMUND T. D. MYERS and CHARLES F. THOMAS, of the city of Washington, in the District of Columbia, have invented a new and useful improvement in the method now in use of inserting into cast-iron water or gas mains or supply pipes what is termed or known as "corporation stop-cocks," the same to be used for connecting the water or gas services with the said mains or supply-pipes without the necessity for diminishing the head of pressure, emptying, or interrupting in any way the flow through said mains or supply-pipes; and we do hereby declare that the same is fully described and specified in the accompanying drawings, letters, figures, and references thereof, together with the description and specification.

Of the said drawings, Figure 1, denotes a plan of a portion of the barrel of a cast iron pipe, with a stop *a*, inserted, on each side of which is shown the conical holes *b*, and *c*, pierced into the pipe. The hole *b*, is ready for receiving the stop *a*, having been drilled by the tool *e*, as seen in Fig. 3, and tapped with a thread by the tool *f*, as seen in Fig. 2. The hole *c*, is drilled and tapped the same as the hole *b*, and further continued into the interior of the pipe, by means of the drill *g*, as seen in Fig. 2.

In Fig. 3, and denoted by letter *e*, is shown the tool for drilling the holes *b*, and *c*, as seen in Fig. 1, before the tapping of the same, and in the same figure is exhibited the stop cock *a*, inserted into the hole *c*, of Fig. 1, the plug *d*, being in a position to prevent the passage of water or gas through it, the drill *g*, is shown as being partially withdrawn, a description of which, will be given hereafter.

In Fig. 2, and denoted by the letter *f*, is the tap, by which the thread is cut in the holes, drilled by the tool *e*, as seen in Fig. 3, also the letter *a*, denotes the stop cock inserted into the holes drilled and tapped by the tools *e*, and *f*, as seen in Figs. 2, and 3. The drill *g*, shown in Fig. 2, is used after the insertion of the stop cock *a*, to complete the passage way to the interior of the pipe and through the thin film, left by the tool *e*, before tapping.

The process of inserting the stop cocks by our method is as follows; By means of the tool *o*, as seen in Fig. 3, the workmen pierces the pipe to the required depth for tapping, leaving a thin film of iron on the interior surface of the pipe. To prevent the escape of water or gas while tapping and inserting the stop cock, he then by means of the tool *f*, as seen in Fig. 2, cuts a thread to the bottom of the hole drilled. The stop cock *a*, is then screwed into the hole, as seen in Fig. 2, the plug *d*, being open to admit the drill *g*, down the passage way of the stop cock. The drill *g* is then inserted as in Fig. 2, and the communication finally effected with the interior of the pipe, after which the drill *g*, is withdrawn to the position shown in Fig. 3, the plug *d*, in Fig. 2, is turned into the position shown at *d*, Fig. 3; after which the drill *g*, may be entirely withdrawn without the water or gas following it.

During the use of the drill *g*, in Fig. 2, a leather ring or washer may be used in the joint of the coupling as seen at *k*, and represented by red color in Figs. 2, and 3, to produce a water tight joint or packing.

The advantages of the above method over those in common use are, as follows. First, the better security of the attachment of the stop cocks, which it is usual to insert by simple driving; second, the absence of any risk of fracture or damage to the pipes, by violently punching off the thin film left by the drill, as in the usual way of driving the stop cocks, and of the absence of an inevitable accumulation of fragments thus forced into the pipes, and in some cases lodging under and around the valves in the mains; third, the security of the workmen while making the insertion, and the resulting safeguard against accidents of frequent occurrence, viz., the flying out of a half driven stop, and the consequent overflow of the trench and street; fourth, economy over any other method of attaining the same safety, in inserting a stop cock; fifth, the end of the stop cocks, inserted into the pipes, do not pass through and project into the interior of the pipes, as in the usual way, to obstruct and accumulate the footing substances, which may by chance, be inside of the water pipes.

We do not claim inserting or screwing in of stop or other cocks, into cast iron water or gas mains or supply pipes, by means of threads or screws upon the stop or other cocks, when the holes for inserting said stop or other cocks, are drilled and tapped entirely through to the interior of the pipes; nor do we claim packing the drill, to make a water tight joint, after the stop or cock is

inserted, for these have been done before. But

What we do claim, and wish to secure by Letters Patent, is as follows, that is to say; we claim—

The method of drilling, tapping, and inserting stop or other cocks, into cast iron water or gas mains or supply pipes, in the manner as set forth, or other manner substantially the same.

EDMUND T. D. MYERS. [L. S.]
CHARLES F. THOMAS. [L. S.]

Witnesses:
M. C. MEIGS,
W. A. MALLOY.