(No Model.)

M. BLAKEY.

THREAD PROTECTOR FOR WROUGHT IRON PIPE.

No. 311,171. Patented Jan. 27, 1885.

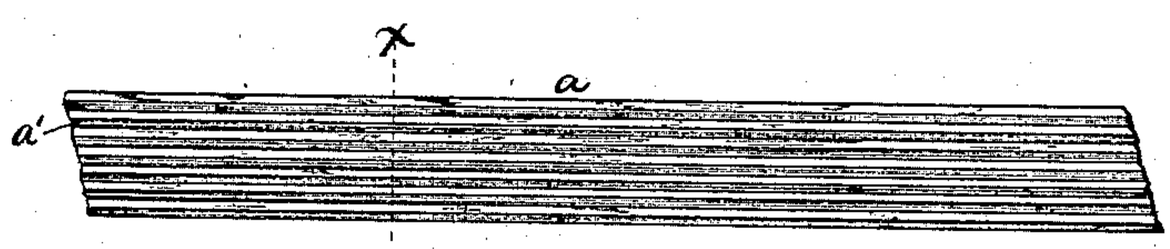

Fig. 1.

Fig. 2.

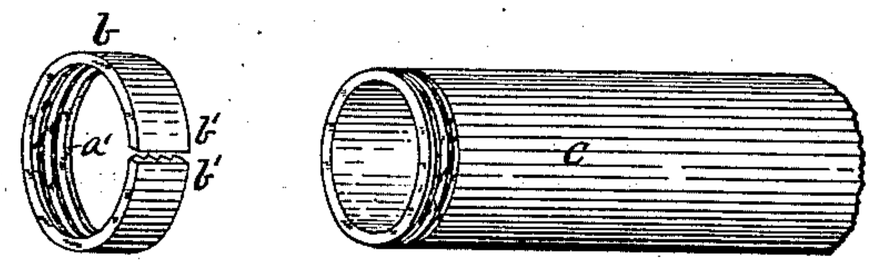

Fig. 3.

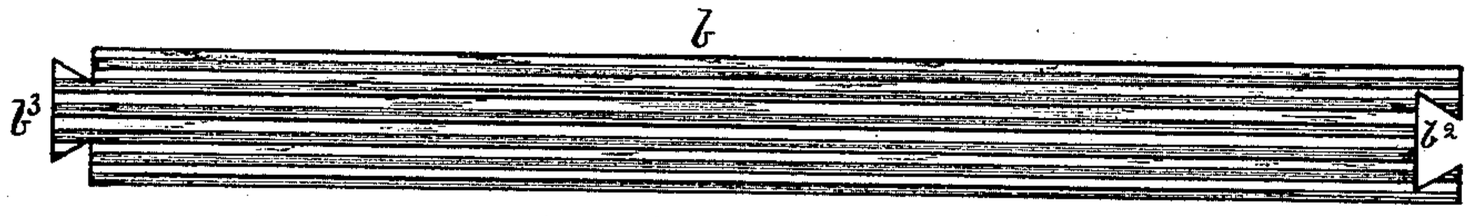

Fig. 4.

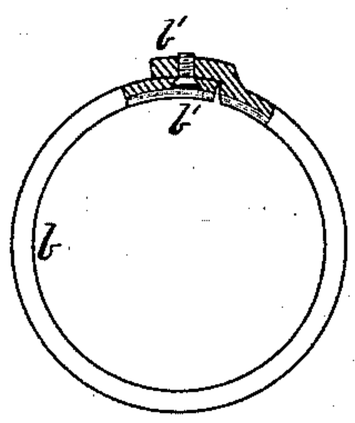

Fig. 5.

Witnesses.

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UNITED STATES PATENT OFFICE.

MILDRED BLAKEY, OF ALLEGHENY, PENNSYLVANIA.

THREAD-PROTECTOR FOR WROUGHT-IRON PIPE.

SPECIFICATION forming part of Letters Patent No. 311,171, dated January 27, 1885.

Application filed June 7, 1884. (No model.)

To all whom it may concern:

Be it known that I, MILDRED BLAKEY, of Allegheny city, in the county of Allegheny and State of Pennsylvania, have invented a new and useful Improvement in Thread-Protectors for Wrought-Iron Pipe; and I do hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawings, forming a part of this specification, in which—

Figure 1 is a plan view of a portion of a bar or strip from which my improved protector is made. Fig. 2 is a section on the line *x x* of Fig. 1. Fig. 3 is a perspective view of one form of my improved device. Figs. 4 and 5 are views of modified forms.

Like letters of reference indicate like parts in each.

Wrought-iron pipes and tubes are made of comparatively soft material, and have thin sides. The threads which are cut on the ends for the purpose of coupling them together are very liable to injury in handling and transportation. Various means have been adopted to protect them—such as plugging the ends of the pipe-sections with wooden plugs having a head or knob of larger diameter than the pipe, so that when the pipe is laid down or piled it will be supported upon the larger wooden knob, and the sides be prevented from coming in contact with hard objects. The plugs, however, are liable to be dislodged and lost, and do not, therefore, accomplish the perfect protection of the threads. Other devices have been used, but they are all open to objection, some failing in efficiency and others being too expensive or troublesome to apply.

My invention consists in rolling a strip, *a*, of iron or steel of the required width, with a series of grooves or threads, *a'*, on one side, as shown in Fig. 1. This strip is cut into suitable lengths, and then bent around in the form of an annulus, as shown in Fig. 3, with the threaded side inward. The ends *b'* of the protector *b*, thus formed, are not fastened together, and the annulus is of slightly less diameter than that of the threaded portion of the pipe *c*, upon which it is designed to be screwed, so that when screwed upon the pipe it will clasp it by its spring action sufficiently to prevent accidental displacement.

In Fig. 4 I show the protector *b* as having a dovetailed joint composed of a recess, b^2, and tongue b^3, so that when it is bent the ends may be secured together. The annulus thus formed is of the proper diameter to screw on the end of the pipe. In Fig. 5 I show the ends *b* riveted together. In this case a rectangular offset is made in one end, so as to form a seat for receiving the other end of the blank. The grooves or threads *a'* may run parallel to the sides of the strip, or they may be angling therewith, as may be desired.

My improved protector can be made very cheaply by rolling the blanks *a*, as described, in suitable rolls, to communicate the threads *a'* thereto. As the strip does not require to be very thick, it can be rolled out to great length, and needs only cutting into suitable shorter lengths to fit it for being bent into shape for use.

When placed on the pipe *c*, a protector of this kind guards the threads perfectly against injury. It is not liable to displacement, and can be used over again a number of times, if removed with ordinary care, when the pipes are needed for use.

When the ends of the protectors are free, as in Fig. 3, the threads may be made parallel with the sides, and when it is put on the pipe it can be sprung slightly angling, so as to register with the spiral threads of the pipe. When, however, the ends are secured, as in Fig. 4 or 5, the threads should run angling, or the ends be secured so as to cause the ends of the threads not to register with each other, but with the ends of the adjacent threads. In such case the protector can be easily screwed on the pipe, notwithstanding its threads are parallel with the sides and its ends are secured together. This construction is illustrated in Fig. 4, where the tongue b^3 and recess b^2 are out of line with each other, so that when connected a leading thread will be thrown out on each side.

It is a simple, cheap, and efficient device.

What I claim as my invention, and desire to secure by Letters Patent, is—

A thread-protector consisting of a thin curved metallic plate or annulus having a series of parallel independent threads formed on its inner face, substantially as and for the purposes described.

In testimony whereof I have hereunto set my hand this 3d day of June, A. D. 1884.

MILDRED BLAKEY.

Witnesses:

W. B. CORWIN,

THOMAS B. KERR.