(No Model.)

C. W. LE COUNT.

LATHE DOG.

No. 453,761. Patented June 9, 1891.

Fig. 1.

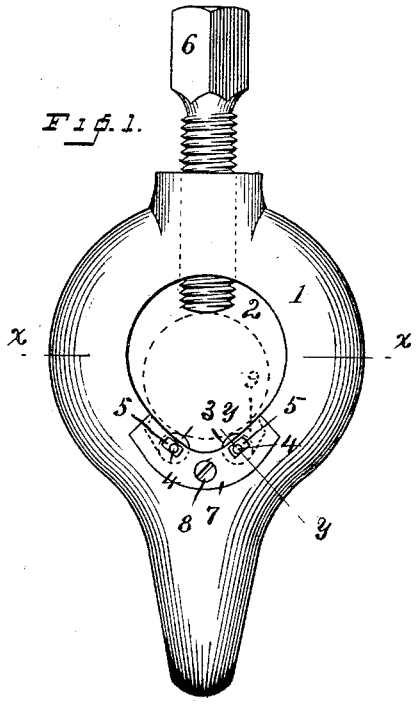


Fig. 2.

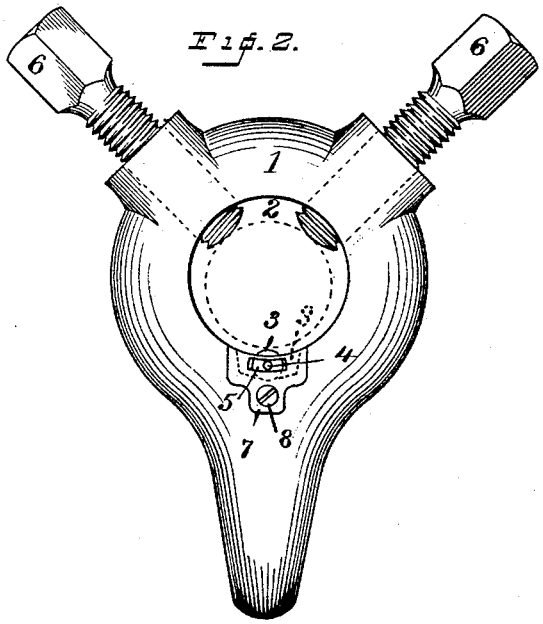


Fig. 3.

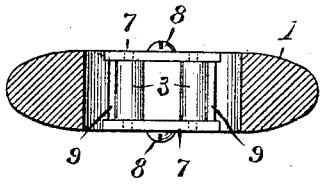
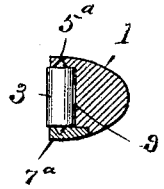


Fig. 4.



WITNESSES

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LATHE-DOG.

SPECIFICATION forming part of Letters Patent No. 453,761, dated June 9, 1891.

Application filed October 6, 1890. Serial No. 367,228. (No model.)

To all whom it may concern:

Be it known that I, CHARLES W. LE COUNT, a citizen of the United States, residing at South Norwalk, in the county of Fairfield and State of Connecticut, have invented certain new and useful Improvements in Lathe-Dogs; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention has for its object to produce a simple, inexpensive, and durable lathe-dog which will grasp an article—as, for instance, a pipe—and hold it perfectly firm, no matter in which direction the strain is applied, slipping being practically impossible when the dog is once tightened up, and the danger of marring the pipe or other article held being wholly avoided.

With these ends in view I have devised the simple and novel construction which I will now describe, referring by numerals to the accompanying drawings, forming part of this specification, in which—

Figure 1 is an elevation of my novel device complete; Fig. 2, a similar view illustrating an obvious modification; Fig. 3, a section on the line $x\,x$ in Fig. 1, looking down; and Fig. 4 is a section corresponding with the line $y\,y$ in Fig. 1, but illustrating a slight change in the details of construction.

1 denotes the body of the chuck, which may be of any suitable or preferred form, and is provided with a central opening 2 to receive the article to be held.

In practice the pipe or other article is held by three points of contact, the essential principle of my invention being that either one or two of the points of contact consist of rollers 3, which lie in a recess 9 and extend into the central opening. These rollers are provided with suitable journals 4, which bear in inclined slots 5, the construction being such that the journals of the roller or rollers will naturally seek the lowest portions of the slots, so that when power is applied to turn the tube or other article backward the tendency will be to force a roller up an incline, which will have the effect of wedging the article, gripping it more firmly. The other contact point or points consist of set-screws 6, extending through the body and into the central opening, which may be operated by hand or by a suitable hand-tool. In my preferred form, as in Fig. 1, I use two rollers and one set-screw. The rollers may be mounted in plates 7 on both sides of the body, as in Figs. 1, 2, and 3, slots 5 being formed in both plates, or a groove 5^a may be formed in the body on one side, as in Fig. 4, and a similar groove in a plate 7^a on the opposite side. In this form the grooves are preferably made V-shaped, and the journals are shaped to correspond, so that the journals themselves do not show on the outer side of the body.

In the form shown in Figs. 1, 3, and 4 the rollers are placed at a suitable distance apart to give two of the required bearings to the article to be held, and in the form shown in Fig. 2 the set-screws are placed at a suitable distance apart to give two of the bearings, the roller at its lowest position in this form being on a line midway between the set-screws, and the slots inclining upward in both directions, so that when strain is applied in either direction the tendency will be to force the roller upward, thereby wedging the article held and gripping it still more firmly. The plates are held in position by screws 8, which engage the body and may have countersunk heads, or, if preferred, raised heads, as shown in Fig. 3.

Having thus described my invention, I claim—

1. A lathe-dog having a central opening to receive the article to be held, and bearing-points consisting of set-screws and rollers mounted in inclined bearings, so that movement of the article in either direction after tightening up will force a roller up an incline, thereby wedging the article and gripping it more firmly.

2. A lathe-dog having a central opening, a set-screw extending into said opening, and rollers mounted in inclined slots, which serve

as the other bearings for the article to be held.

3. A lathe-dog having a central opening, a set-screw extending into said opening, a recess opposite to the set-screw, and rollers in said recess extending into the central opening, said rollers being provided with journals, one of which engages a groove in the body and the other a corresponding groove in a plate detachably secured to the body.

In testimony whereof I affix my signature in presence of two witnesses.

CHARLES W. LE COUNT.

Witnesses:

GILBERT M. RITCH,

DANIEL P. MORRELL.