

C. C. KROHN.
 MEANS FOR SECURING PAPER ROLLS TO A ROLL SHAFT.
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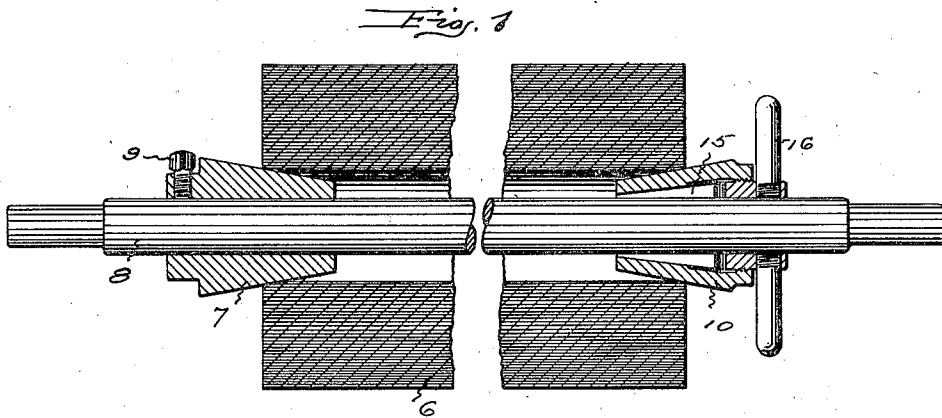


Fig. 3

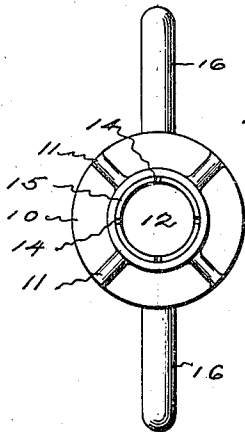


Fig. 2

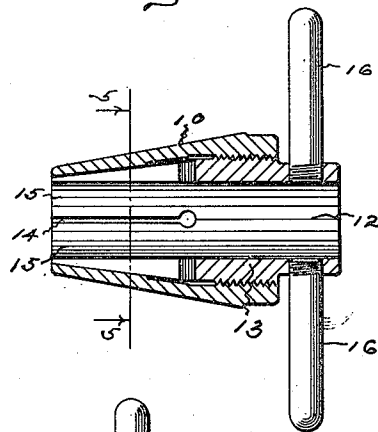


Fig. 4

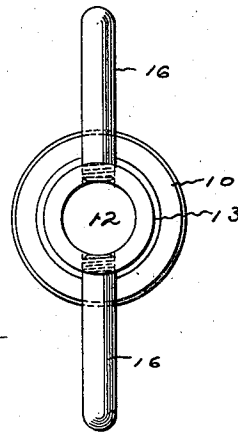
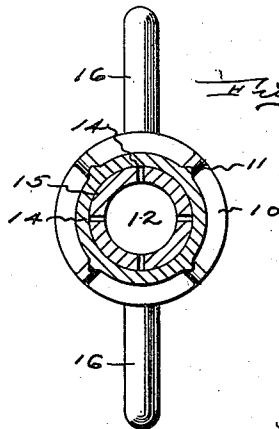


Fig. 5



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MEANS FOR SECURING PAPER-ROLLS TO A ROLL-SHAFT.

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To all whom it may concern:

Be it known that I, CHARLES C. KROHN, a citizen of the United States, residing at Hartford, in the county of Hartford and State of Connecticut, have invented a new and useful Improvement in Means for Securing Paper-Rolls to a Roll-Shaft, of which the following is a specification.

Print paper is received from the mills by newspaper and the like establishments in the form of large heavy rolls. These rolls are by the pressmen fixed to roll shafts and then lifted and placed in the proper positions in the rotary presses for the paper to correctly feed to the printing cylinders.

This invention relates to a means for fastening such rolls of paper upon the roll shafts.

A cone of the proper diameter to fit into the opening through the paper roll is fixed to the roll shaft near one end and after the shaft has been thrust through the roll of paper another cone is put upon the other end of the roll shaft and temporarily secured so that the paper roll will be held by the cones.

The object of this invention is to provide a removable roll shaft cone which is so constructed that it can be easily and quickly manipulated for fastening a roll of paper securely in the correct position on a roll shaft.

In attaining this end the removable cone is formed of two members, an outer paper supporting hollow cone and an inner shaft clamping hollow cone. The inner cone is screwed into the outer cone and when turned in one direction is contracted and when turned in the opposite direction is permitted to expand.

Figure 1 of the accompanying drawings illustrates the manner of securing a roll of paper to a roll shaft by means which embody this invention. Fig. 2 shows on larger scale a longitudinal section of the removable cone. Fig. 3 is a view looking toward the small end of the cone. Fig. 4 is a view looking toward the large end of the cone. Fig. 5 shows a transverse section taken on the plane indicated by the dotted line 5-5 on Fig. 2.

When mounted ready for placing in a rotary press a roll of paper 6 is held at one end by a cone 7 that is secured to the roll shaft 8 by a set screw 9 and is held at the other end by a removable cone which is clamped to the roll shaft.

The outer member of the removable cone has a hollow body 10 that tapers both inside and outside. On the exterior of the tapering portion of this outer member are longitudinally extending ribs 11, and the interior wall of the outer member at the large end is threaded.

The inner member 13 of the removable cone is also conical. It has a central opening 12 that has a sliding fit on the shaft and near the large end it is threaded to fit the threaded interior wall of the large end of the outer member. Slots 14 are formed longitudinally inward from the small end of the inner member so as to provide yielding jaws 15. Handle bars 16 are set into the outer end of the inner member that extends beyond the large end of the outer member.

After the roll shaft has been thrust through the central opening in the roll of paper and is drawn up so that the cone which is fixed on the shaft will enter the opening and support that end of the roll of paper, the removable cone is slid on the shaft and thrust into the opening in the paper roll until the outer member enters the opening and supports the roll at that end. When the removable cone is properly located a simple turn of the handles screws the inner member into the outer member, and the engagement of the yielding tapering fingers of the inner member with the tapering wall of the outer member causes the fingers to be contracted and tightly bound against the shaft and thus hold the removable cone in place. A backward turn of the handles unscrews the inner member and causes its release from the shaft so that it can be slid off.

This paper roll holder or roll shaft cone is composed of but two parts, the outer paper supporting member and the inner clamping member, which parts are simple to manufacture and which can be easily manipulated so as to tightly clamp the holder to or release the holder from the roll shaft.

The invention claimed is:

1. Means for holding a roll of paper consisting of the combination of a shaft, means fastened on said shaft and adapted to project into one end of a roll of paper, a hollow rigid cone with a tapered interior and tapered exterior adapted to project into the other end of the roll of paper, and a hollow yielding cone with a tapered exterior and cylindrical interior adapted to be moved

along the shaft and to be screwed into and to be contracted by engagement with the interior wall of the first mentioned cone for securing both cones to the shaft.

5 2. A cone for holding one end of a roll of paper on the roll shaft of a rotary press, consisting of two members—a hollow outer member having conical exterior and conical interior walls and provided with a thread in
10 its interior at the large end, and a hollow inner member having conical exterior and cylindrical interior walls and provided with

a thread on its exterior at the large end fitting the thread in the outer member and with slots extending longitudinally from its 15 smaller end so as to form spring arms that will be contracted by engagement with the conical inner wall of the outer member when the inner member is screwed into the outer member, said inner member also having 20 means at its large end whereby it may be screwed into the outer member.

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