July 4, 1950 L. J. GRINER 2,513,643

ATTACHMENT FOR NEWSPAPER PRESS INKING ROLLER SHAFTS

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Fig. 1.

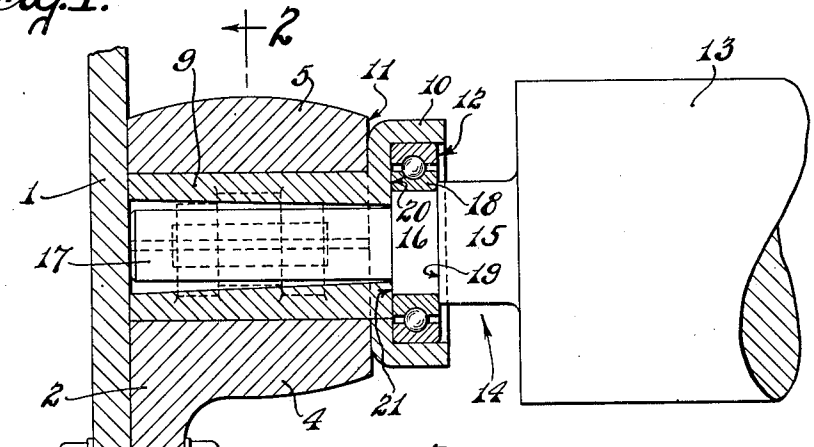
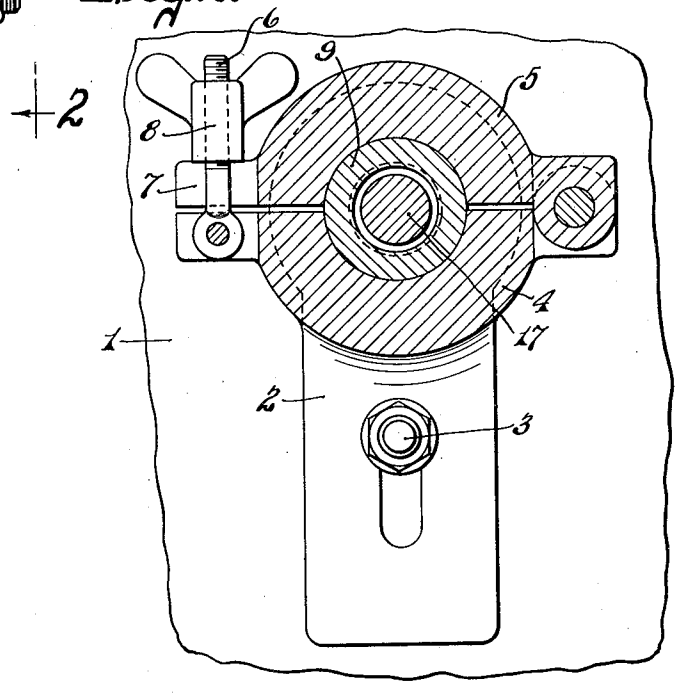


Fig. 2.



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ATTACHMENT FOR NEWSPAPER PRESS INKING ROLLER SHAFTS

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2 Claims. (Cl. 308—22)

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This invention relates to an attachment for the shaft of an inking roller of a newspaper printing press and has for an object a simple and effective construction to provide for the removable support of such rollers from the press without straining bearing assemblies for the rollers.

As is well known in the art, inking rollers are heavy rubber covered cylinders mounted to distribute, spread, and transfer the printing ink on various drums and cylinders of the press. They are more or less frequently removed from the press unit for purposes of repair and replacement.

The necessity for removal or rollers with relative frequency has created a problem in connection with bearing supports for the roller shafts. In a pending application Serial No. 86,186, filed April 8, 1949, for "Attachment for Newspaper Press Inking Roller Shafts" by Arnold L. Imshaug, a shaft attachment is disclosed to overcome such objectionable features and the present application is directed to the same general problem. The present construction is, however, specifically different in some aspects and has in particular newspaper press units specific advantages over the constructions shown by the aforesaid pending application.

The nature of the present construction will be pointed out in the description of the same as shown by the accompanying drawings, in which,

Fig. 1 is a sectional view of the attachment mounted in the clamp of a press unit and supporting an inking roller thereby; and

Fig. 2 is a sectional view on line 2—2 of Fig. 1.

On the side frame 1 of a press unit is secured a usual type of mounting bracket 2 as by a bolt 3. The bracket is in the form of a split clamp with base 4 and cap 5 held in clamped position by a bolt 6 pivoted on the base 4 and swung into an open ended slot 7 of the cap. A wing nut 8 clamps the cap to the base.

The socket of the clamp, as will be understood by those familiar with this type of mechanism, usually consists of a split cylindrical bushing, one half set in the cap and the other half in the base. In such a bushing the end of a roller shaft is usually journaled.

As shown by the drawings, I have provided herein a cylindrical sleeve 9 to be held in the socket of the clamp. The sleeve extends inwardly beyond the clamp with an enlarged shouldered inner end 10 set against the inner face 11 of the clamp. Set in the enlarged end

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10 as by a press fit is an anti-friction bearing, as a ball bearing assembly 12.

The inking roller 13 is mounted by its shaft 14 which as shown is formed with a hub portion 15, a reduced collar portion 16 and an end portion 17 narrowed from said collar 16. The collar portion 16 is set in the bearing 12, the inner race 18 being held between the rim 19 of the shaft collar and the shoulder surface 20 of the sleeve 9. It will be noted that the inner edge portion of the shoulder surface 20 abuts the shoulder 21 separating shaft portions 16 and 17.

The interior surface of sleeve 9 is closely spaced from the end extension 17 of the shaft, the latter freely rotating when the axis of the shaft is substantially identical with the axis of the sleeve. As shown by Fig. 1 the inner bore of sleeve 9 is slightly tapered to provide for any slight wobbling or misalignment of the shaft and extension 17 in the sleeve.

It will be seen that when the cap 5 is swung from clamping position and the sleeve is no longer held by the clamp in axial alignment with the shaft the narrowed portion 17 will be prevented from excessive angular movement axially of the closely spaced sleeve 9. The bearing 12 will thus remain intact. The spacing of the sleeve and shaft will keep the weight of the heavy inking roller from straining and buckling the bearing. The bearings thus can not twist loose from the raceways.

While the construction of the attachment disclosed may be adapted for any newspaper press unit mounting assembly for the inking rollers it has special application in certain press units wherein the frame wall 1 will be found to abut the outer end of the mounting clamp and the spacing between the inking roller end and clamp is limited. In the aforesaid pending application an attachment is disclosed to be used in connection with brackets found in many press installations where space limitations do not interfere with the extension of the roller shaft end beyond the clamp, and in which the spacing between roller and clamp does not create limiting factors all as will be appreciated from the relative positioning of the parts in the accompanying drawings.

Having described my invention I claim:

1. In a newspaper press inking roller shaft attachment assembly with a split clamp for mounting the shaft on a fixed support, a roller shaft having a narrowed end portion for extending within the socket of said clamp, an adjacent collar portion of greater diameter than said end

portion, and a shouldered hub portion adjacent thereto of greater diameter than said collar portion, a sleeve encasing said narrowed end extension in closely spaced immediately adjacent relation and provided with an enlarged shouldered inner end portion encircling said collar, and an anti-friction bearing snugly fitted in said enlarged end of said sleeve and held on said collar by the inner vertically disposed portion of said shouldered enlargement and the shoulder of said hub, whereby said roller shaft is journaled in said bearing on the collar, said spacing between the encasing sleeve and said shaft end extension restricting the relative axial movement of the same to a substantially parallel relation when the sleeve is unsupported by said clamp.

2. In a newspaper press inking roller shaft attachment assembly with a split clamp for mounting the shaft on a fixed support, a roller shaft having a narrowed end portion for extending within the socket of said clamp, a hub portion of larger diameter adjacent the body of the inking roller and a stepped collar portion between the end and hub portions of greater diameter than said end extension, a sleeve encasing said narrowed end extension and engageable by said split clamp, the bore of said sleeve being outwardly tapered and of slightly greater diameter than said end extension, said sleeve at its inner end having an enlarged shouldered portion abutting the inner face of said clamp, said shoulder carrying an anti-friction bearing fitted therein, the bearing being mounted on said stepped collar portion, and held between said sleeve shoulder and stepped hub portion, whereby said roller shaft is journaled in said bearing on the collar and relative axial movement of said shaft and sleeve is limited by the spacing between the end extension and encasing sleeve portion.

LESLIE J. GRINER.

REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
1,781,467	Madsen	Nov. 11, 1930
1,980,580	Gilmore	Nov. 13, 1934
2,451,620	Holmes	Oct. 19, 1948

FOREIGN PATENTS

Number	Country	Date
382,616	Great Britain	Oct. 25, 1932