J. HUNDHAUSEN.

APPARATUS FOR HOLDING PAPER ROLLS.

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1,110,136.

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Fig. 1.

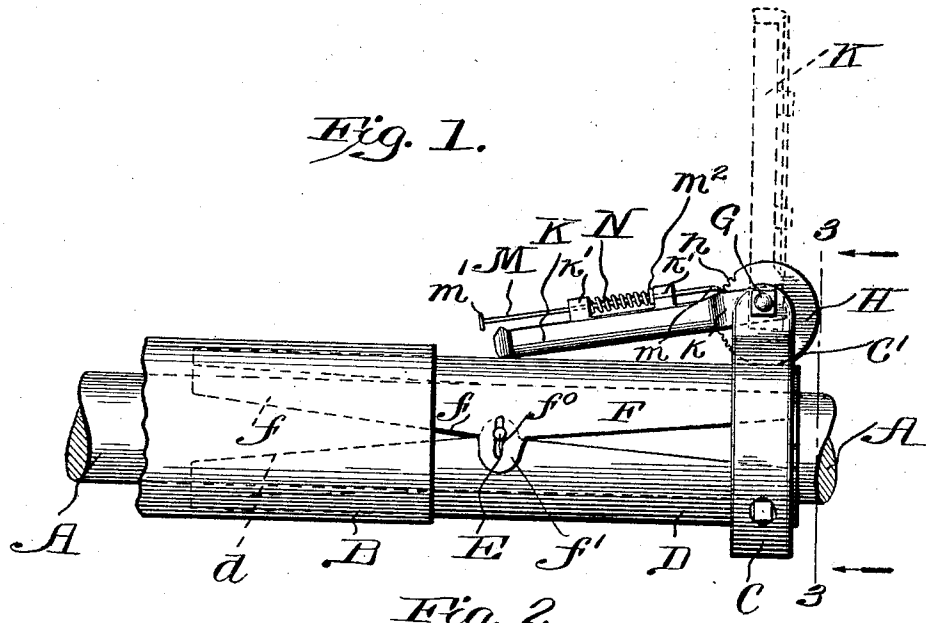


Fig. 2.

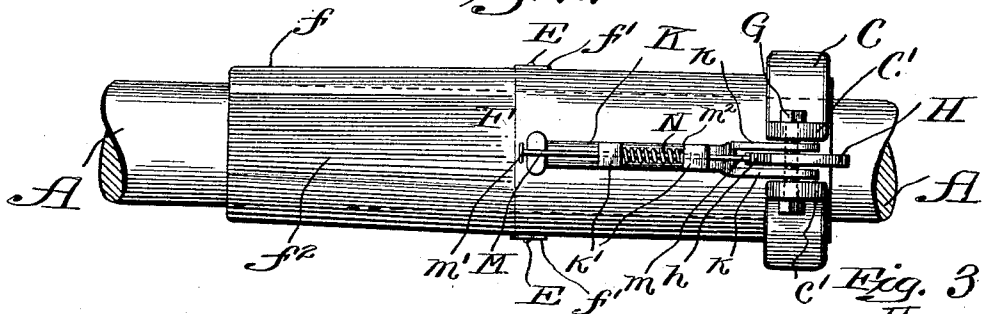
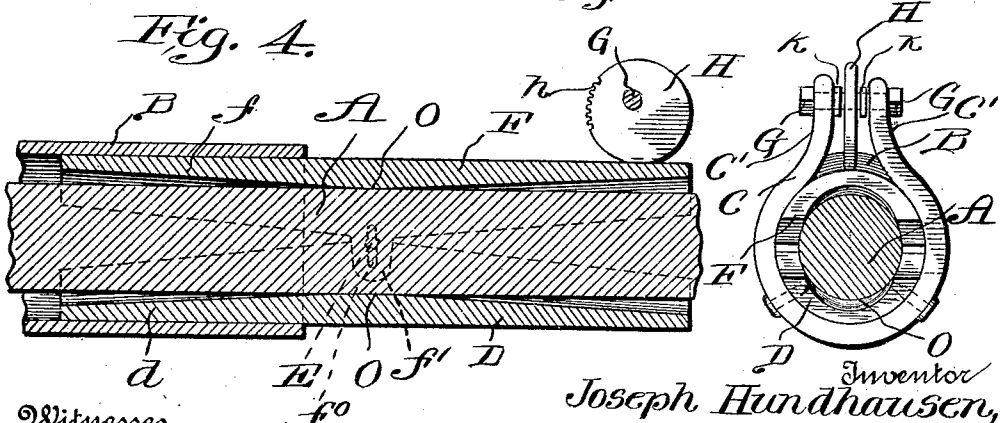


Fig. 3

Fig. 4.



Witnesses

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APPARATUS FOR HOLDING PAPER-ROLLS.

1,110,136. Specification of Letters Patent. Patented Sept. 8, 1914.

Application filed April 22, 1914. Serial No. 833,739.

To all whom it may concern:

Be it known that I, JOSEPH HUNDHAUSEN, a citizen of the United States, residing at Schofield, in the county of Maraton and State of Wisconsin, have invented certain new and useful Improvements in Apparatus for Holding Paper-Rolls; 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 relates to improvements in apparatus for holding paper rolls, and it consists of hollow adjustable holding jaws adapted to be inserted into the hollow core of the paper roll, and to slip over the spindle used for winding and unwinding the same.

It is especially intended to provide quickly attachable and detachable adjustable means for use in connection with various size cores of paper rolls where it is desired to wind the paper on, or unwind it from said core.

My invention will be understood by reference to the accompanying drawings, in which the same parts are indicated by the same reference symbols throughout the several views.

Figure 1 is a side elevation of the device as applied to a rotary shaft and inserted in the hollow core of the paper roll; Fig. 2 is a plan view of the device mounted on the shaft, but with the core of the paper roll removed; Fig. 3 shows a section along the line 3—3 of Fig. 1, and looking in the direction of the arrows; and Fig. 4 shows a central longitudinal section through the rotary shaft and the gripping arms.

A represents the shaft for winding or unwinding the paper roll, to which the device is connected, as will be hereinafter described.

B represents the hollow core of the paper roll which is constructed in the usual way.

C represents a collar which is adapted to be mounted on the shaft A. This collar carries two holding members, the lower member D being fast to said collar, and the upper member F being hinged to the lower member as by means of the pin E which projects into the slot f^0 in the lug f' of the upper member. These two members D and F have the jaws d and f which project into the hollow core B, and the backs of these jaws are preferably ribbed or roughened, as at f^2, to firmly engage on the interior of the core B when the jaw f is pressed outward, as will be hereinafter described. These two holding members are provided with a thick central portion O registering with the pin E, and taper forward and rearward in thickness, as shown in Fig. 4.

The collar C is provided with arms C′, spanned by the bolt G, on which bolt the eccentric H and the yoke k of the operating lever K are pivoted. The eccentric H is provided with holding teeth h to engage the pawl m carried by the end of the rod M, the other end of which rod is provided with a thumb lug m'. This pawl is normally pressed into engagement with the teeth h by means of the coil spring N mounted between the lugs k' of the lever K, and having its free end bearing against the collar m^2 of the rod M. In operation the eccentric is thrown to the disengaged position indicated by the dotted lines in Fig. 1, releasing the arm F; and the collar C, carrying the members D and F, is slid on the shaft A until the holding jaws d and f project into the hollow core B, then by turning the eccentric down toward the position shown in full lines in Figs. 1 and 2, the two members D and F are rocked about their fulcrums O, and the holding jaw f is pressed outward, causing the two jaws f and d to engage the interior of the core and at the same time the fulcrums O of the members F and D grip the shaft A firmly. When this shaft A is caused to rotate it will turn the core B, thus winding or unwinding the paper, as the case may be. These holding devices may be of varying sizes to suit the varying sizes of drive shafts or roll cores, but each holder is of itself adjustable within limits; thus where the shaft is of small diameter the two holding members D and F would be close together and the lever K would be turned to give the full throw of the eccentric, while if the shaft be of larger diameter it might be possible to turn the hand lever only part of the way down before the desired gripping effect on the shaft and in the core is secured. The conditions would be reversed if while the diameter of the shaft remains constant, the diameter of the hollow core be increased.

It will be obvious that the device may be quickly applied to or removed from the core, and also from the shaft A, when desired.

It will be obvious that various modifications might be made in the herein described construction and in the combination and arrangement of parts which could be used

without departing from the spirit of my invention.

Having thus described my invention, what I claim and desire to secure by Letters Patent of the United States is:—

1. A device for connecting hollow cores to a shaft, comprising a collar adapted to slip over said shaft, two holding members loosely pivoted together and having their heels projecting into said collar, gripping jaws near the forward end of said holding members, and a cam journaled in said collar and adapted to press the heels of said jaws toward each other, substantially as described.

2. A device for connecting hollow cores to a shaft, comprising a collar adapted to slip over said shaft, two holding members loosely pivoted together and having their heels projecting into said collar, said holding members being provided with fulcrums adapted to engage said shaft, gripping jaws near the forward end of said holding members, and a cam journaled in said collar and adapted to press the heels of said jaws toward each other, substantially as described.

3. A device for connecting hollow cores to a shaft, comprising a collar adapted to slip over said shaft, two holding members loosely pivoted together and having their heels projecting into said collar, gripping jaws near the forward end of said holding members, and an eccentric journaled in said collar and adapted to press the heels of said jaws toward each other, with means for turning said eccentric, substantially as described.

4. A device for connecting hollow cores to a shaft, comprising a collar adapted to slip over said shaft, two holding members loosely pivoted together and having their heels projecting into said collar, said holding members being provided with fulcrums adapted to engage said shaft, gripping jaws near the forward end of said holding members, and an eccentric journaled in said collar and adapted to press the heels of said jaws toward each other, with means for turning said eccentric, substantially as described.

5. A device for connecting hollow cores to a shaft, comprising a collar adapted to slip over said shaft, two holding members loosely pivoted together and having their heels projecting into said collar, gripping jaws near the forward end of said holding members, and an eccentric journaled in said collar and adapted to press the heels of said jaws toward each other, with means for turning said eccentric, said means comprising a lever hinged to the pivot of said eccentric, and a ratchet and pawl connection between said lever and said eccentric, substantially as described.

6. A device for connecting hollow cores to a shaft, comprising a collar adapted to slip over said shaft, two holding members loosely pivoted together and having their heels projecting into said collar, said holding members being provided with fulcrums adapted to engage said shaft, gripping jaws near the forward end of said holding members, and an eccentric journaled in said collar and adapted to press the heels of said jaws toward each other, with means for turning said eccentric, said means comprising a lever hinged to the pivot of said eccentric, and a ratchet and pawl connection between said lever and said eccentric, substantially as described.

7. A device for connecting hollow cores to a shaft, comprising a collar adapted to slip over said shaft, a holding member secured in one side of said collar, an oppositely-disposed holding member pivoted to the first member and having its heel projecting into the opposite side of said collar, gripping jaws near the forward end of said holding members, and a cam journaled in said collar and adapted to press the heels of said jaws toward each other, substantially as described.

8. A device for connecting hollow cores to a shaft, comprising a collar adapted to slip over said shaft, a holding member secured in one side of said collar, an oppositely-disposed holding member loosely pivoted to the first member and having its heel projecting into the opposite side of said collar, gripping jaws near the forward end of said holding members, said holding members being provided with fulcrums adapted to engage said shaft, and a cam journaled in said collar and adapted to press the heels of said jaws toward each other, substantially as described.

9. A device for connecting hollow cores to a shaft, comprising a collar adapted to slip over said shaft, a holding member secured in one side of said collar, an oppositely-disposed holding member loosely pivoted to the first member and having its heel projecting into the opposite side of said collar, gripping jaws near the forward end of said holding member, and an eccentric journaled in said collar and adapted to press the heels of said jaws toward each other, with means for turning said eccentric substantially as described.

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

JOSEPH HUNDHAUSEN.

Witnesses:
MAX VEHLOW,
M. W. GOETSCH.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."