

(No Model.)

J. O. COUCH.
CAP FOR CARRIAGE AXLES.

No. 327,658.

Patented Oct. 6, 1885.

Fig. 1. :

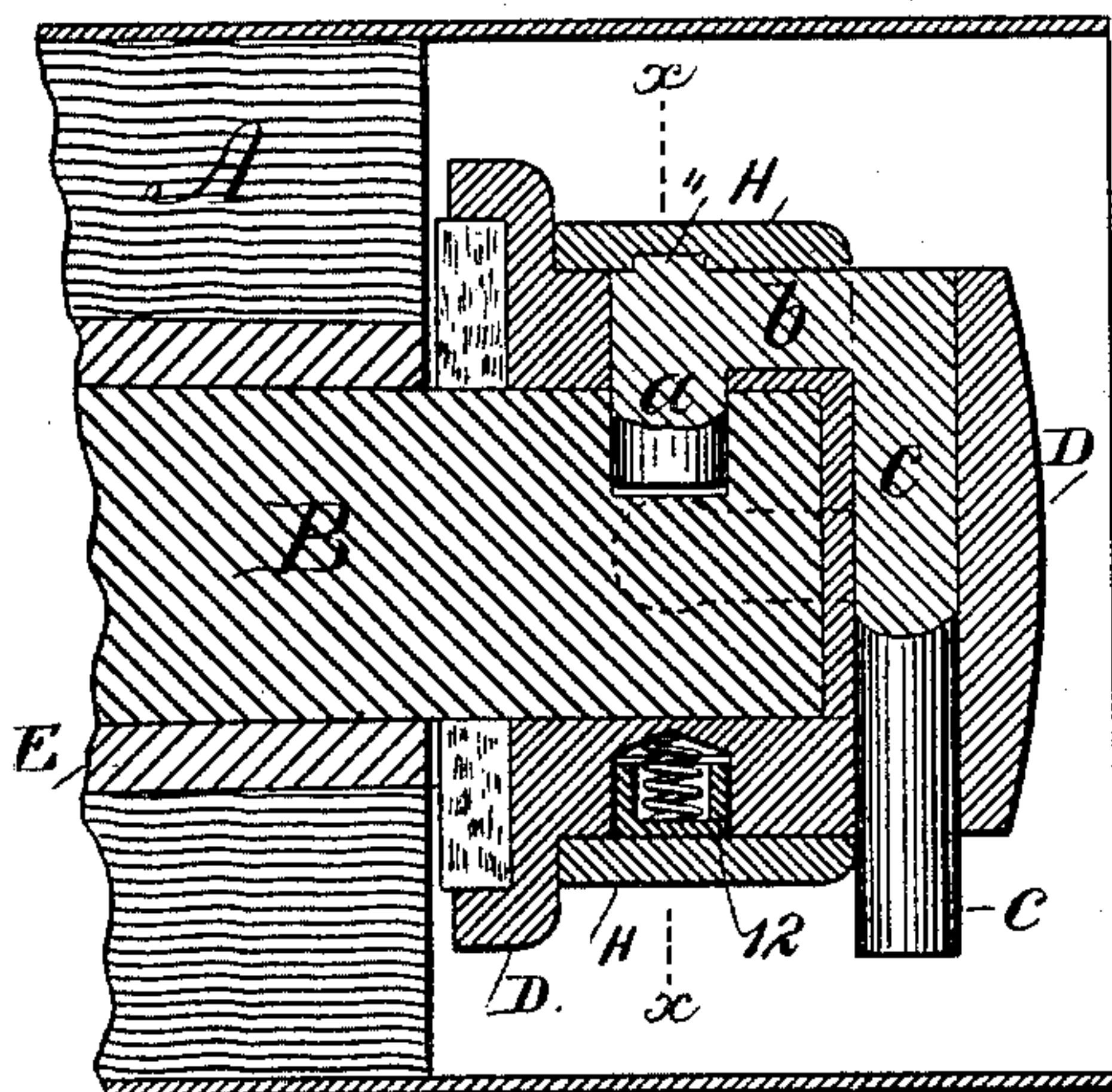


Fig. R.

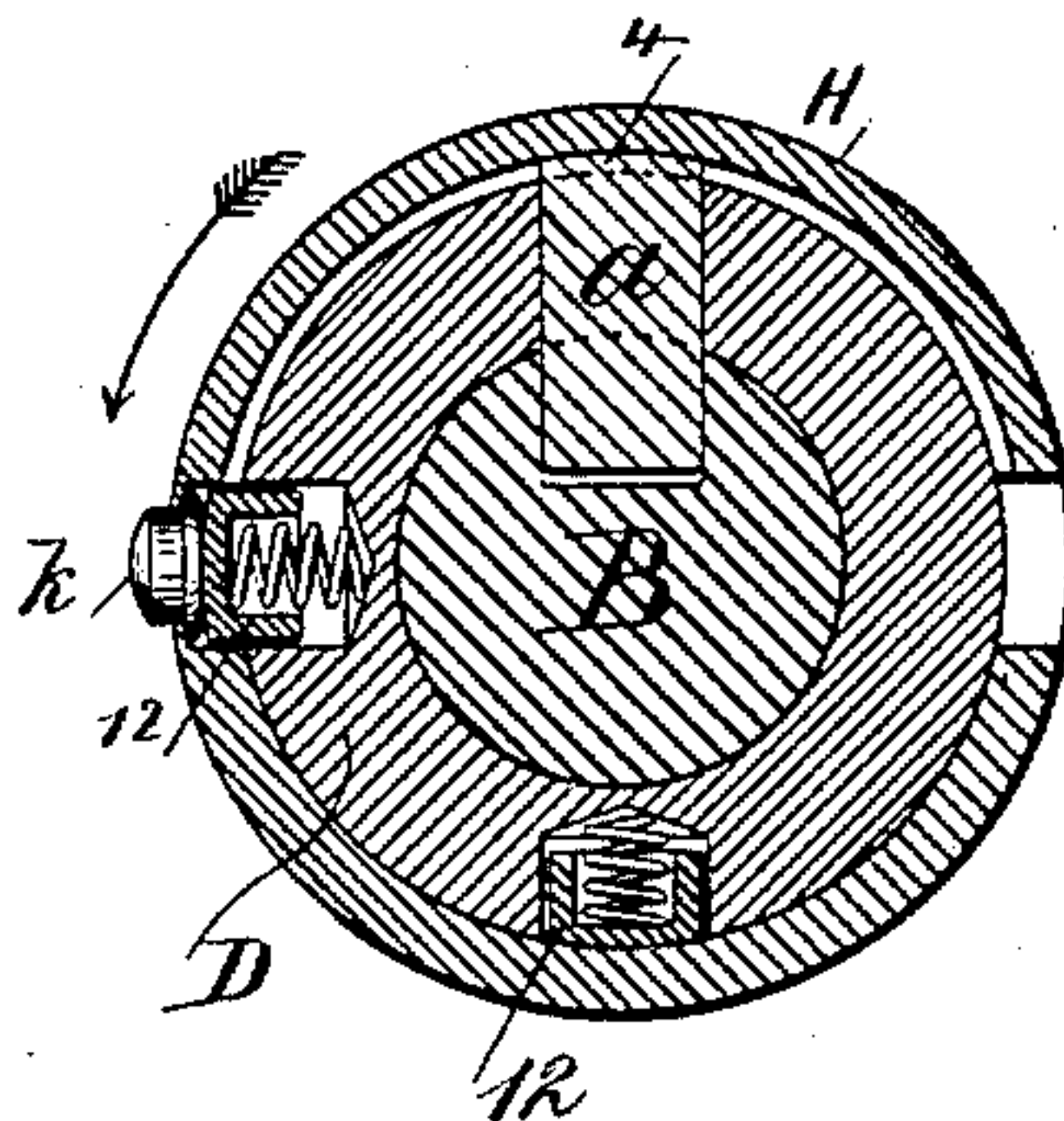
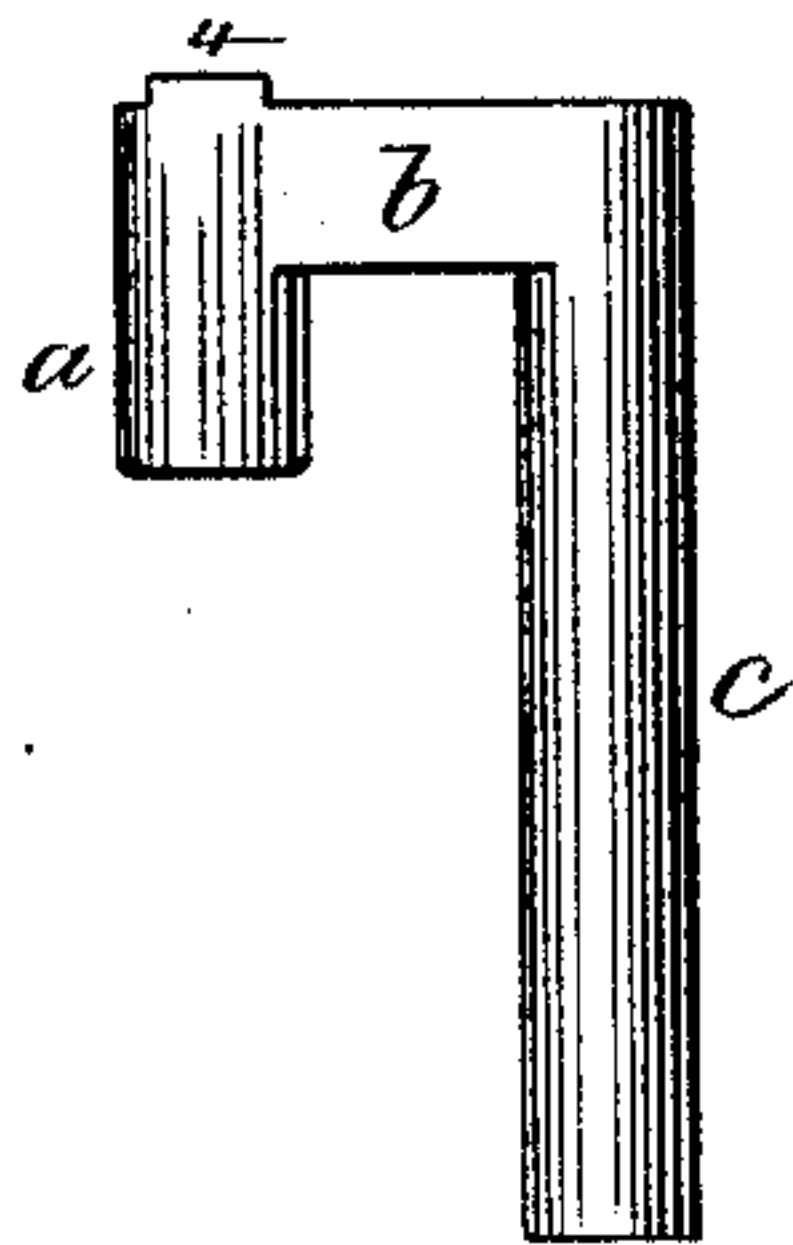


Fig. 3.



Witnesses

Chas H Smith
J. Staley

Inventor

Invent
John O. Couch.

For Lemuel W. Serrell

UNITED STATES PATENT OFFICE.

JOHN O. COUCH, OF MIDDLEFIELD, CONNECTICUT, ASSIGNOR TO JOHN I. HOLLY, OF NEW YORK, N. Y.

CAP FOR CARRIAGE-AXLES.

SPECIFICATION forming part of Letters Patent No. 327,653, dated October 6, 1885.

Application filed March 23, 1885. Serial No. 159,763. (No model.)

To all whom it may concern:

Be it known that I, JOHN O. COUCH, of Middlefield, in the county of Middlesex and State of Connecticut, have invented an Improvement in Caps for Carriage-Axles, of which the following is a specification.

This present invention is an improvement upon that set forth in the application No. 157,209, filed February 27, 1885, by Otis A. Smith, John T. Smith, and John O. Couch.

This present invention is for still further simplifying the parts that fasten the cap on the axle and for lessening the expense in the construction.

In the drawings, Figure 1 is a vertical section of the axle and cap. Fig. 2 is a cross-section at the line *x x*, and Fig. 3 is an elevation and end view of the locking pin and bolt.

The axle B, hub A, tubular box E, and cap D are similar to those in the aforesaid application with the exceptions hereinafter named.

The locking-pin *a* and the head *b* are made in one piece with the bolt *c*, or else permanently fastened together, a spring being dispensed with; hence the bolt *c* can be made of a uniform size throughout. In introducing this locking-pin and bolt into the cap D they are entered from oneside, the said cap D having a hole right through it for the bolt *c*, a hole for the locking-pin *a*, and a recess for the head *b*. These parts are entered from one side of the cap D after the band H has been passed over the cap D, and said band H has an opening in it for the passage of the locking-pin *a* and head *b*, so that after the said locking-pin *a* and head *b* have been passed into place with the locking-pin *a* in a hole in the axle B the band H is partially revolved so as to retain the locking-pin *a* firmly in its place.

It is preferable to introduce the locking-pin *a* at the upper part of the cap, so that the projecting end of the bolt *c* will be downward, and the parts will be disconnected by pressing up the said bolt *c* and lifting the locking-pin *a* out of the hole in the axle B.

It is usually preferable to provide a rib, 4, on the outer end of the locking-pin *a* and to turn into the inner surface of the band H a corresponding groove, and in order to prevent the band H rotating after it has been turned for holding the locking-pin *a*, I make use of the spring plug 12, introduced into a hole in the cap D; and in the band H there is a hole countersunk for the reception of a flanged push-plug, *k*, and the hole in this band that receives the flange of the push-plug is sufficiently large to receive the end of the spring-plug 12, and it is preferable to use two of these spring-plugs 12. As seen in Fig. 2, one of these plugs is in line with the bolt *c* and the other plug is at ninety degrees from the same.

By this arrangement the spring-plug 12 will hold the band H when it is turned to cover the end of the locking-bolt *a*; but when the push-plug *k* is pressed upon the locking-plug 12 is forced down sufficiently to allow the ring D to be turned, and when the opening in said ring D coincides with the locking-pin *a* and its head *b* the second spring-plug 12 will hold the ring H in the proper position for allowing the locking-pin *a* to be moved so as to separate the cap from the axle. The reverse motion secures the parts firmly in place.

I claim as my invention—

1. The combination, with the cap D and the notched ring H, of the locking-pin *a*, head *b*, and bolt *c*, in one piece or permanently connected, substantially as set forth.

2. The combination, with the cap D, locking-pin *a*, bolt *c*, and ring H, of the spring-plug 12, and flanged pusher-plug *k*, substantially as set forth.

Signed by me this 19th day of March, A. D. 1885.

JNO. O. COUCH.

Witnesses:

CHAS. G. R. VINAI,
FREDERIC VINAI.