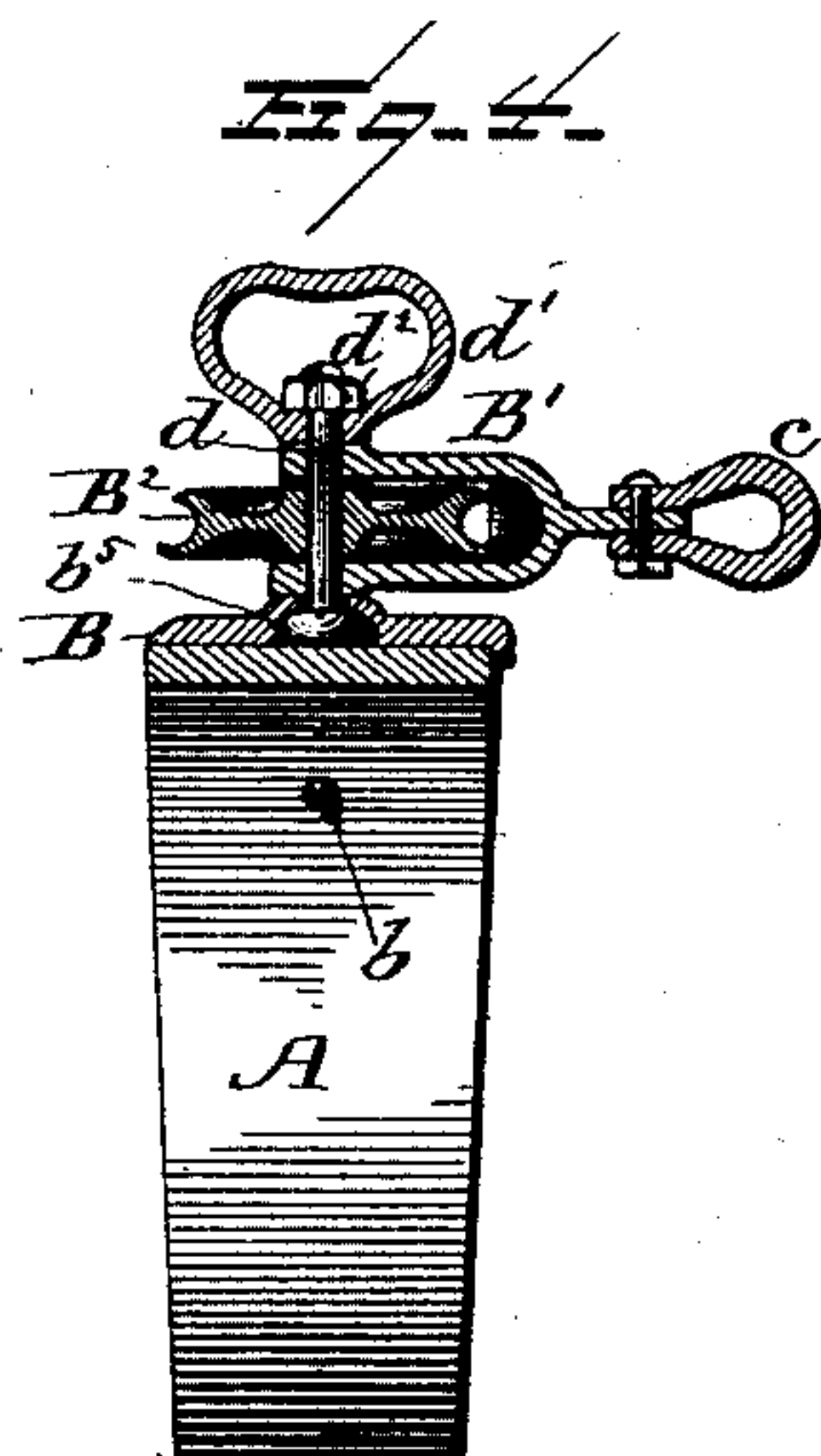
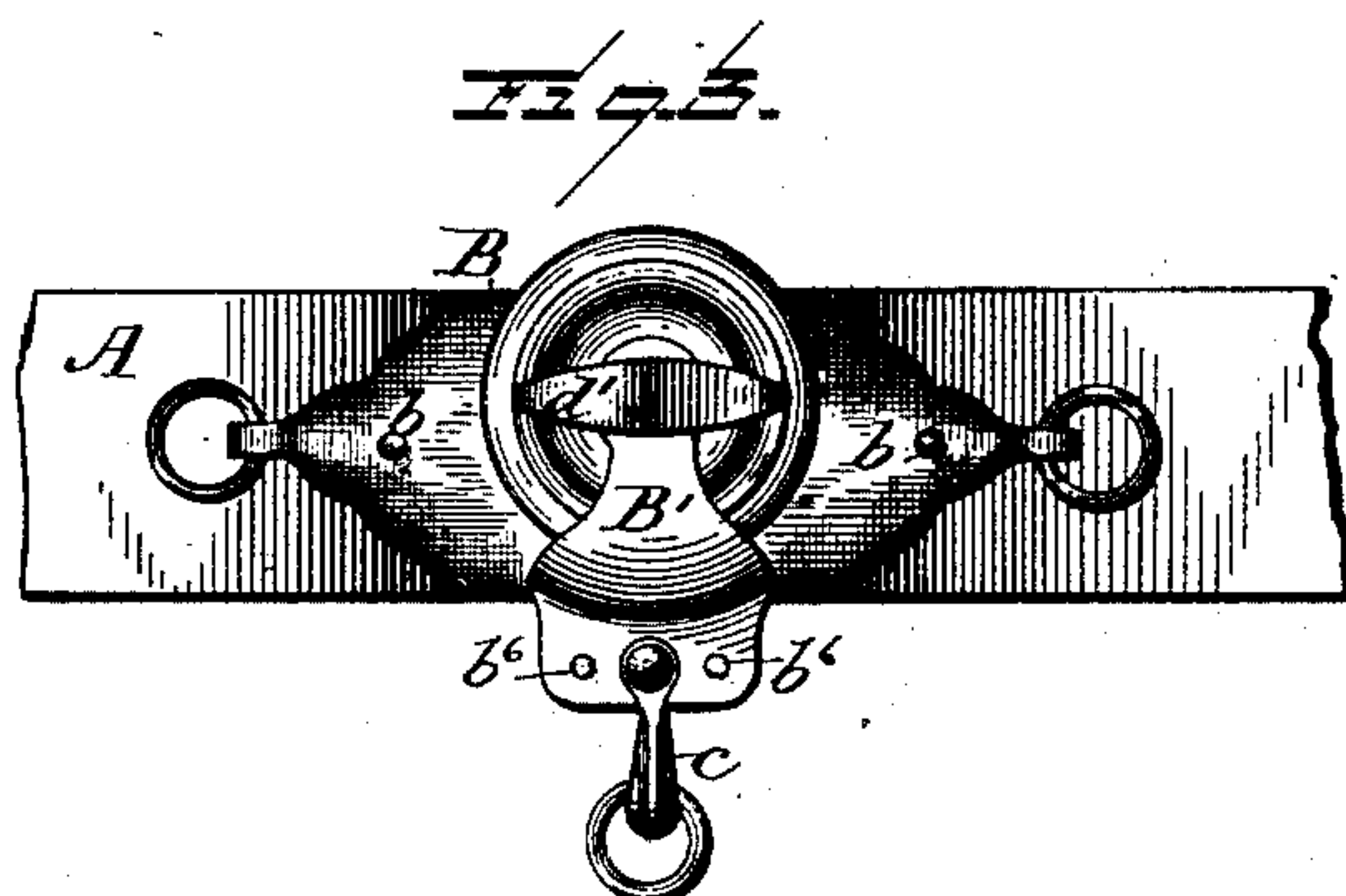
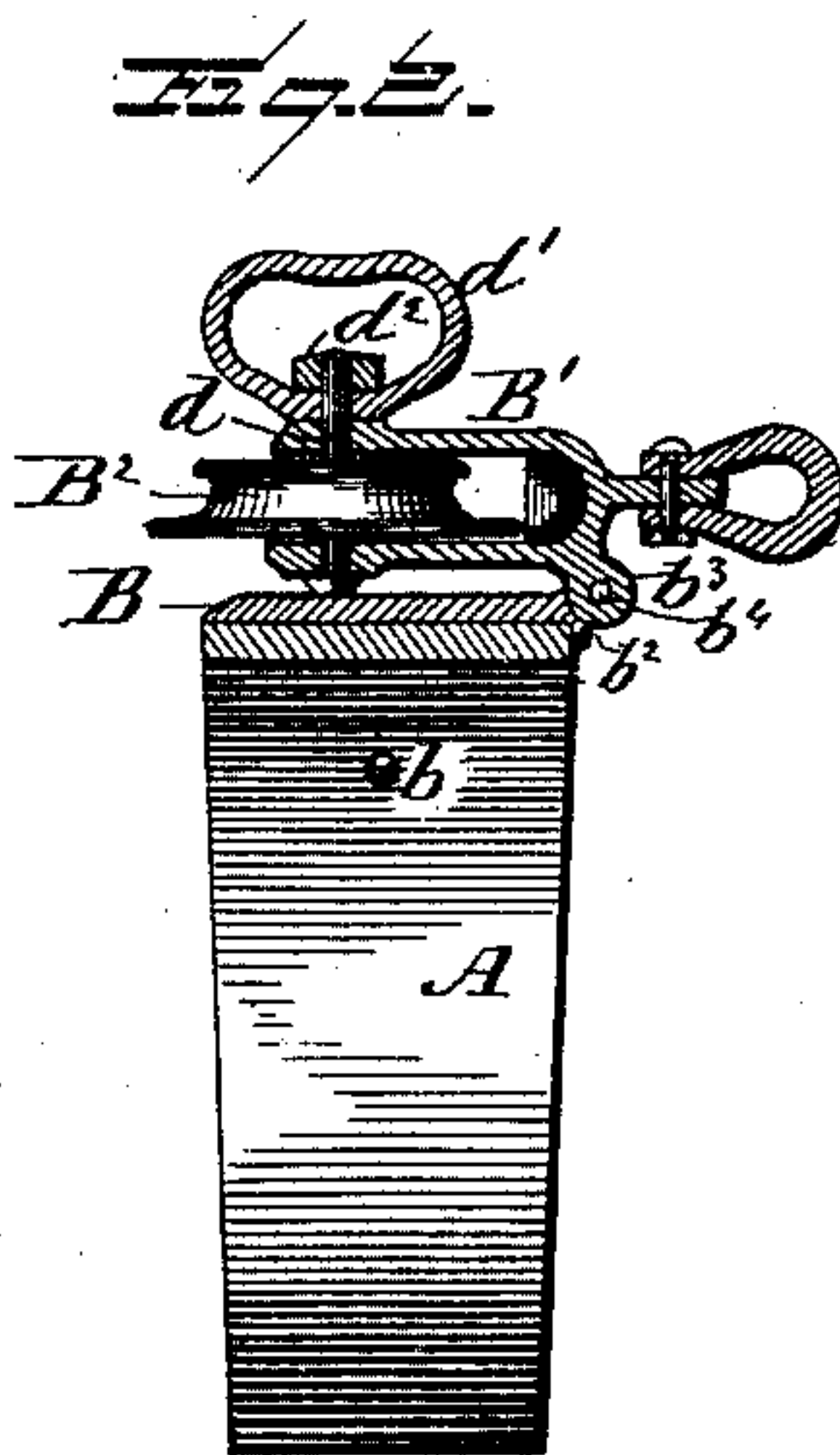
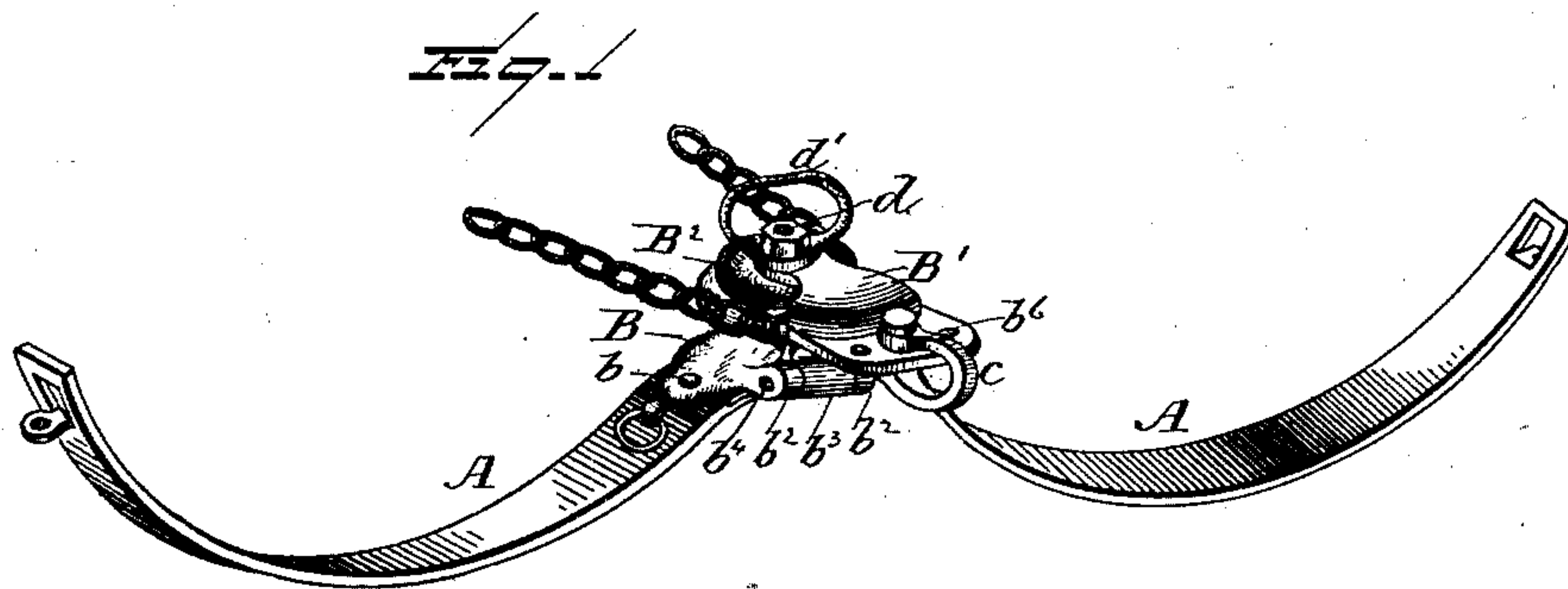


(No Model.)

A. SHERWOOD.  
HARNESS.

No. 374,431.

Patented Dec. 6, 1887.



Witnesses:  
*E. J. Murdock*  
*J. J. Masson*

Inventor:  
*Allen Sherwood,*  
by *E. E. Masson*  
Atty

# UNITED STATES PATENT OFFICE.

ALLEN SHERWOOD, OF SYRACUSE, NEW YORK.

## HARNESS.

SPECIFICATION forming part of Letters Patent No. 374,431, dated December 6, 1887.

Application filed May 2, 1887. Serial No. 236,760. (No model.)

*To all whom it may concern:*

Be it known that I, ALLEN SHERWOOD, a citizen of the United States, residing at Syracuse, in the county of Onondaga, State of New York, have invented certain new and useful Improvements in Harness, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention relates to that class of work-harness which employs a yoke supported beneath the horses and connected by short traces to the hames, and serving for the connection of the draft-chain between the horses, thereby dispensing with the use of ordinary traces, rendering the control of plows much easier, and obviating injury to shrubbery and trees by outside traces and projecting singletrees, providing a harness which is as well adapted for use in connection with wagons, sleighs, stone-boats, and drags, as well as other vehicles, and is an improvement upon the harness for which Letters Patent were granted to me January 5, 1886, No. 333,556; and my invention consists in certain features of construction of the yoke, consisting of a single piece of steel, properly bent, carrying an evener-chain and pulley duly inclosed, said pulley and its inclosure being loosely hinged or pivoted to the yoke to permit them to become automatically adjusted to the line of draft without twisting or working the yoke up and down, as hereinafter described, and the novel features of which are specifically set forth in the claims.

Referring to the drawings, Figure 1 is a perspective view of a yoke constructed in accordance with my invention. Fig. 2 is a transverse vertical section through the center of the same. Fig. 3 is a top view of the middle portion of the same. Fig. 4 is a transverse vertical section through the center of the yoke, but showing a modification of the means for pivoting the pulley-frame to said yoke.

In said drawings the yoke is represented at A. It is made of springy steel arched upward in the center and in the opposite direction on each side thereof, and properly tempered, and on top of the arch is secured the

draw-plate B by means of rivets *b*. To the draw-plate is secured the cap-plate B' for the evener-pulley B<sup>2</sup>. To permit this pulley and its cap to become tilted, so as to adjust itself to the line of draft without rocking the body of the yoke, said cap is hinged or loosely pivoted to the draw-plate, as clearly shown in the sectional views, Figs. 2 and 4.

To produce the hinge shown in Figs. 1 and 2, there is projecting from the rear of the draw-plate either a large or two small perforated lugs, *b*<sup>2</sup>, and similar lugs, *b*<sup>3</sup>, are projecting from the under side of the pulley-cap B, and a pin, *b*<sup>4</sup>, passing through all the lugs securely but pivotally, connects said cap to the draw-plate.

To retain the pulley pivotally connected within its cap, a bolt, *d*, is made to pass through the forward portion of the cap and through the eye of the pulley and forms the journal of the latter, and, furthermore, fastens the handle *d'* on top of the cap by means of the nut *d*<sup>2</sup> on its upper end.

The draw-plate B (shown in Fig. 4) has a pocket or cavity, *b*<sup>5</sup>, to loosely receive the head of the bolt *d*, and the perforation made in the top of said pocket is sufficiently large to allow said bolt to oscillate and the pulley thereon to adjust itself to the line of draft, and therefore permit the yoke to hang properly under the horses.

To permit the yoke to be used evenly with horses of unequal size or strength, the rear end of the pulley-cap is provided with not only a perforation in its axis to receive the bolt of the clevis *c*, but with lateral perforation *b*<sup>6</sup>, to receive the same bolt, so that the draft-chain can be shifted on one side toward the strongest horse without danger of said chain shifting out of its set position, as it occasionally happens with clevises having simply depressions on their inner surface.

Having now fully described my invention, I claim—

1. In a draft-harness, as herein described, the combination of a steel yoke, its draw-plate in the center thereof, the yoke-pulley, and its cap pivotally connected to the draw-plate, whereby said pulley and cap are adapted



to be automatically adjusted to the line of draft, all substantially as and for the purpose described.

2. The combination, in a draft-harness, of a  
5 metal yoke, its draw-plate provided with a cavity in the under side thereof, the yoke-pulley and its cap, and a bolt passing through said pulley and cap and having its head in

said cavity, all substantially as and for the purpose described. 10

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

ALLEN SHERWOOD.

Witnesses:

A. G. TIMMONS,

L. M. PEDLEY.