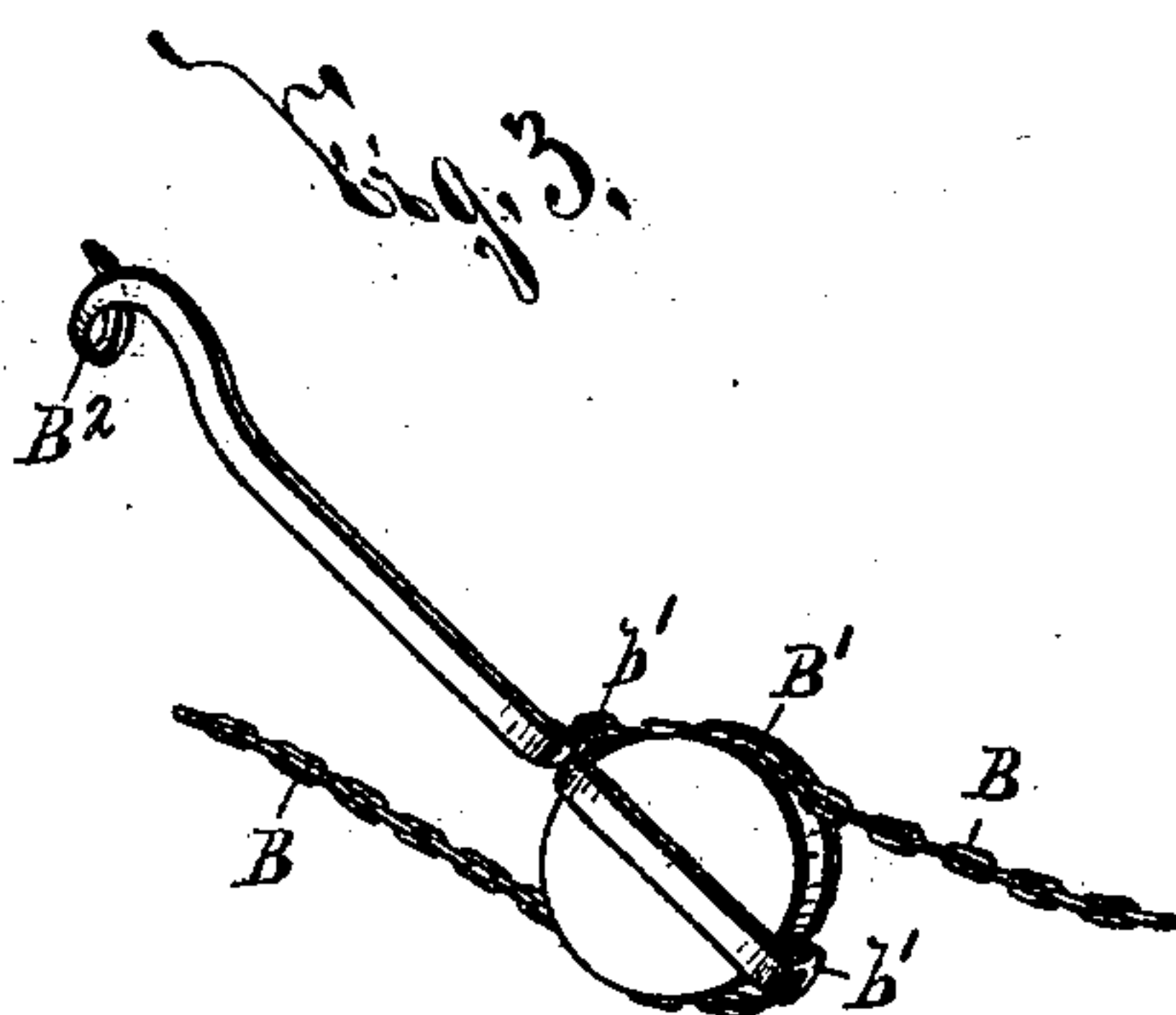
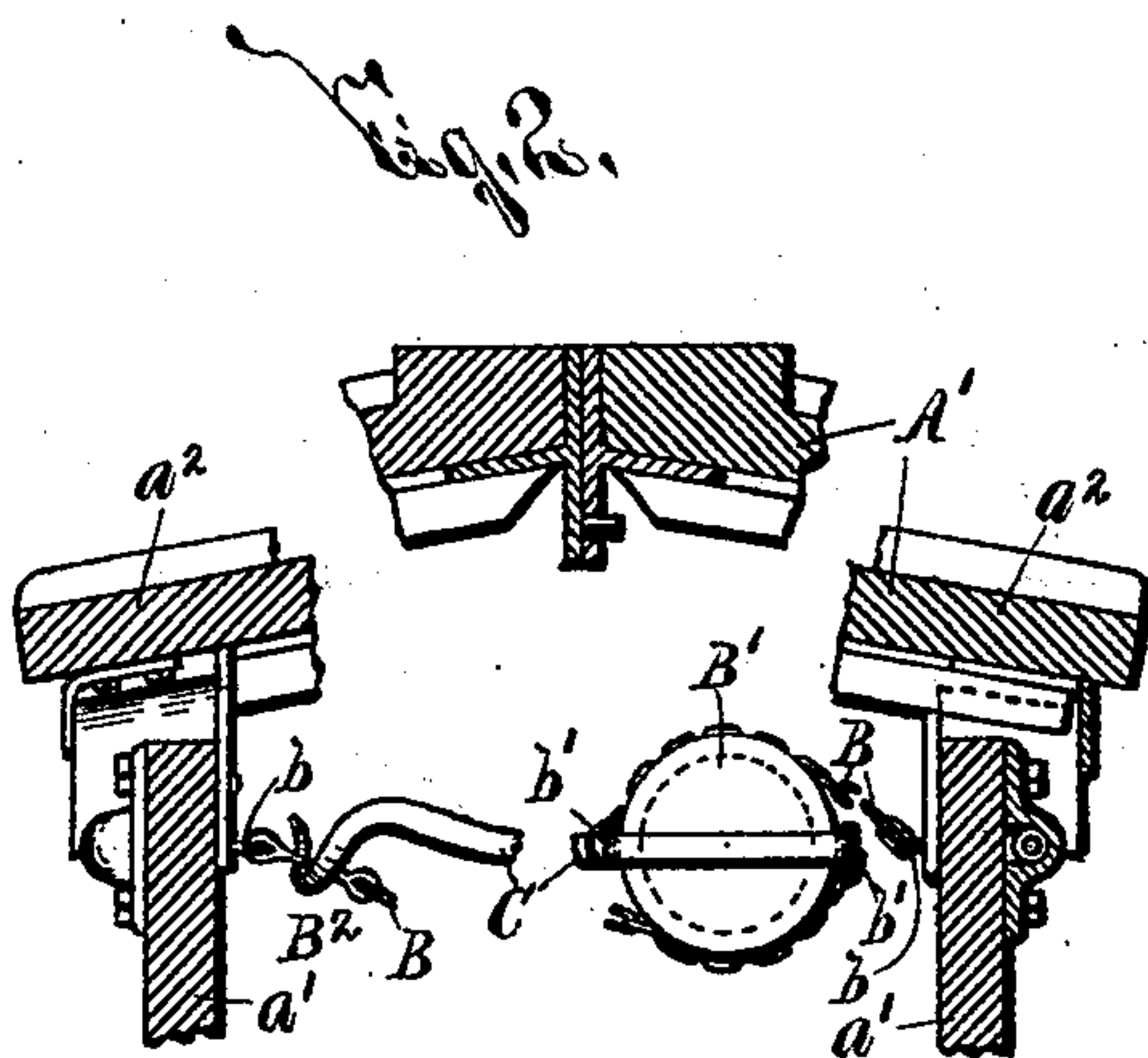
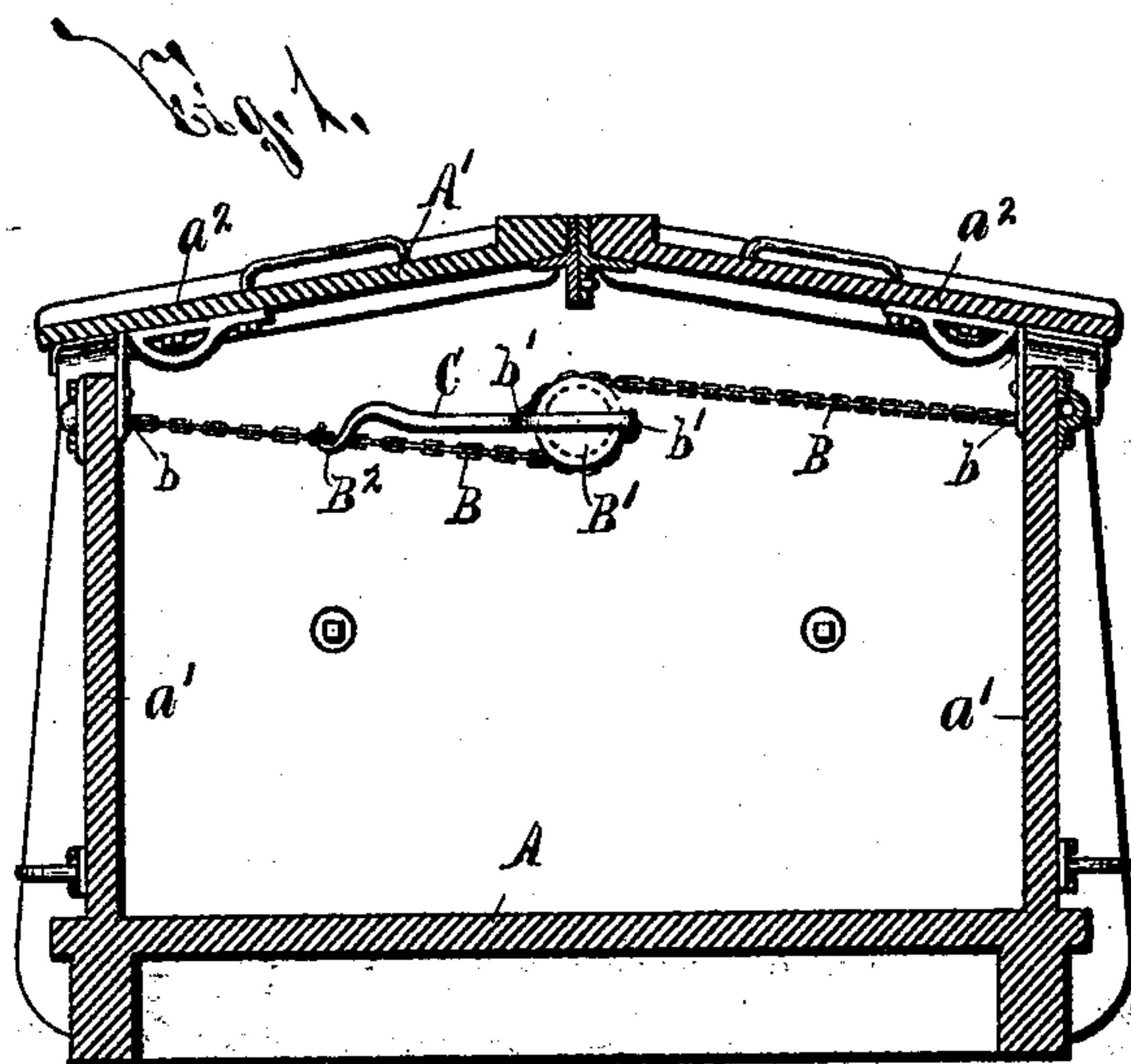


(No Model.)

T. M. NALTON.
TIE CHAIN FOR VEHICLE BODIES.

No. 516,400.

Patented Mar. 13, 1894.



WITNESSES:

H. Chase,
M. D. Lewis.

INVENTOR

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BY

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UNITED STATES PATENT OFFICE.

THOMAS M. NALTON, OF SYRACUSE, NEW YORK.

TIE-CHAIN FOR VEHICLE-BODIES.

SPECIFICATION forming part of Letters Patent No. 516,400, dated March 13, 1894.

Application filed August 1, 1893. Serial No. 482,068. (No model.)

To all whom it may concern:

Be it known that I, THOMAS M. NALTON, of Syracuse, in the county of Onondaga, in the State of New York, have invented new and
5 useful Improvements in Vehicles, of which the following, taken in connection with the accompanying drawings, is a full, clear, and exact description.

My invention relates to improvements in
10 vehicles, and particularly those of the class described in my pending application, Serial No. 454,057, filed December 5, 1892, and has for its object the production of a simple and practical device for holding the opposite sides
15 of the vehicle body in their normal position and preventing spreading thereof, which is economically manufactured, readily placed in operative position, easily operated, and is durable and effective in use; and to this end
20 it consists, essentially, in flexible tie sections having their outer ends secured to said opposite sides of the vehicle body, and a lever connected to the inner ends of said sections for drawing the same together, and in the detail
25 construction and arrangement of the parts, all as hereinafter more particularly described and pointed out in the claims.

In describing this invention, reference is
30 had to the accompanying drawings, forming a part of this specification, in which like letters indicate corresponding parts in all the views.

Figure 1 is a transverse vertical sectional
35 view of the vehicle body shown in my aforesaid application, my present invention being illustrated as operatively secured to the opposite sides of said body. Fig. 2 is a similar sectional view, shown as enlarged and as having portions thereof broken away, and
40 Fig. 3 is an isometric perspective of the detached lever or connection between the inner ends of the tie sections, said ends of the tie sections being shown as operatively secured thereto.

45 It is well known that the central portions of the sides of vehicle bodies, such as cars, wagons, &c., used for transporting coal, stone, and similar materials are frequently forced
50 wardly, thereby deteriorating the appearance

of the vehicle, and usually rendering inoperative movable covers therefor of the class described in my aforesaid application. My present invention is designed to effectually prevent such separation or outward bowing of
55 the central portions of the sides of a vehicle body, and is readily secured in operative position and operated without the exercise of skill, and without materially reducing the capacity of the vehicle body.

A represents the vehicle body, which may be of any desirable form, size, and construction, and is provided with a bottom wall *a*, and side walls *a' a'*. The vehicle body, shown
60 in the accompanying drawings, is provided with a cover *A'* consisting of opposite sections *a² a²*, but it is unnecessary to further illustrate or describe said cover, as the same forms the subject matter of my aforesaid application, Serial No. 454,057.

70 B—B represent the tie sections having their outer ends secured to the opposite sides *a' a'* of the vehicle body, and preferably to the upper ends thereof. These flexible tie sections may be composed of a chain, as illustrated,
75 or of a cable, wire, or rope, and their outer ends may be secured by staples or other fastening means *b b*.

C is the connection or lever arranged between the opposite ends of the tie sections
80 B B, and provided with a drum *B'* upon opposite rounding sections of the face of which the inner ends of the tie sections B B are wound. The inner ends of these sections B B
85 are secured at separate points to the connection or lever C, and said lever is preferably provided with arms *b' b'* extending laterally therefrom across the face of the drum *B'* and provided with perforations for receiving the
90 inner ends of said tie sections. As the connection or lever C is forced to an upright position or toward the tie section at one side thereof the adjacent ends of the tie sections are separated, and, as the lever C is forced in
95 the opposite direction or toward the opposite tie section, the inner ends of the tie sections are wound upon the drum *B'* and the upright sides *a' a'* of the vehicle body are firmly held in position.

In order that the lever C may be positively 100

and effectually held in its operative position it is provided at its free end with a shoulder or hook B², which engages one of the tie sections B, and effects this result.

5 It is evident that the connection or lever C and the tie sections B B are economically manufactured, readily placed in operative position, and easily operated for the desired purpose.

10 The operation of my invention will be readily perceived from the foregoing description and upon reference to the drawings, and it will be particularly noted that the same does not materially decrease the capacity of
15 the vehicle body, is economically manufactured, assembled, and placed in operative position, and is durable and effective in use.

Having thus fully described my invention, what I claim as new, and desire to secure by
20 Letters Patent, is—

1. The combination with the opposite sides of a vehicle body having their central portions movable toward and away from each other; of flexible tie sections, each section having its
25 outer end secured to the central portion of one of said sides, and a lever provided with opposite rounding engaging face sections connected to the inner ends of said connections for drawing the central portions of said sides toward each other said lever being engaged
30 with one of the tie sections at one side of said engaging face sections for holding the tie sections in their adjusted position, substantially as and for the purpose described.

35 2. The combination with the opposite sides of a vehicle body having their central portions

movable toward and away from each other; of flexible tie sections, each section having its outer end secured to the central portion of one of said sides, a revoluble drum provided with
40 a face upon which the inner ends of said sections are wound for drawing the central portions of said sides toward each other, and a lever secured to said drum for engaging one of the sections and holding the drum in its
45 adjusted position, substantially as and for the purpose specified.

3. The combination with the opposite sides of a vehicle body having their central portions movable toward and away from each other; of
50 flexible tie sections, each section having its outer end secured to the central portion of one of said sides, a revoluble drum provided with a face upon which the inner ends of said sections are wound for drawing the central portions
55 of said sides toward each other, and a lever secured to said drum and provided with arms extending laterally across said face of the drum and secured to the inner ends of said sections and provided with a shoulder
60 for engaging one of the sections and holding the drum in its adjusted position, substantially as and for the purpose set forth.

In testimony whereof I have hereunto signed my name, in the presence of two attesting witnesses, at Syracuse, in the county of Onondaga, in the State of New York, this 12th day of May, 1893.

THOMAS M. NALTON.

Witnesses:

CLARK H. NORTON,
E. A. WEISBURG.