

(No Model.)

J. TILTON.
VEHICLE AXLE.

No. 437,263.

Patented Sept. 30, 1890.

Fig. 1.

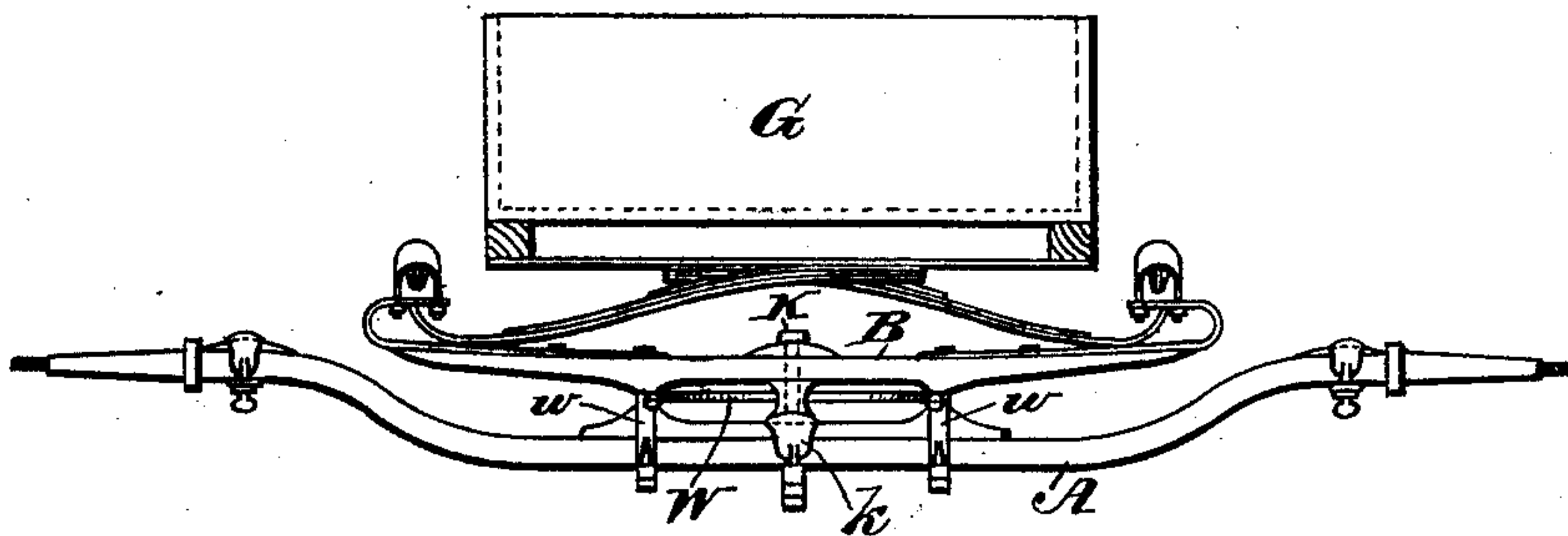


Fig. 2.

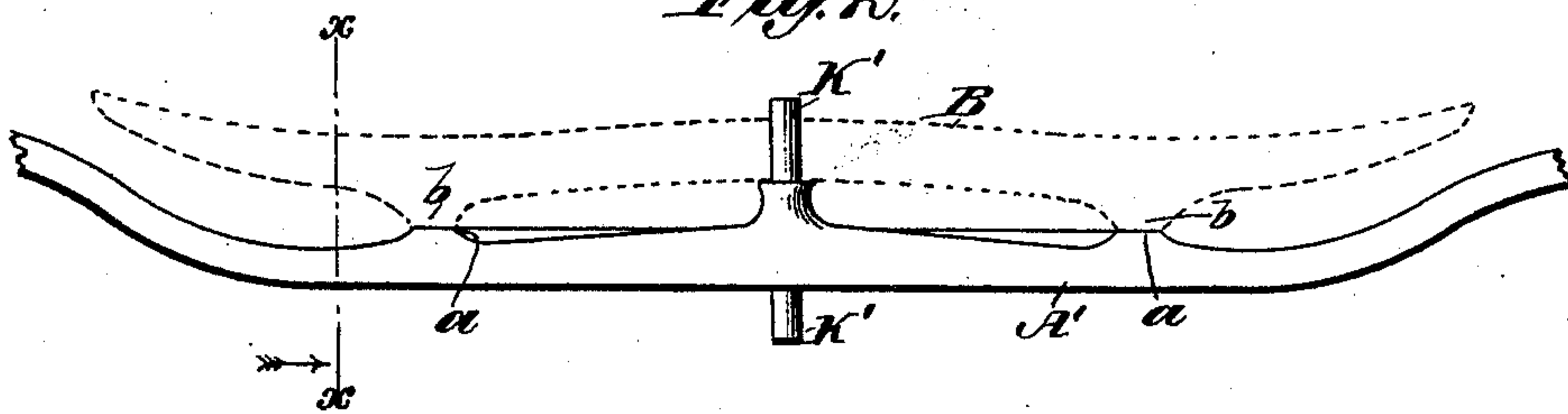


Fig. 3.

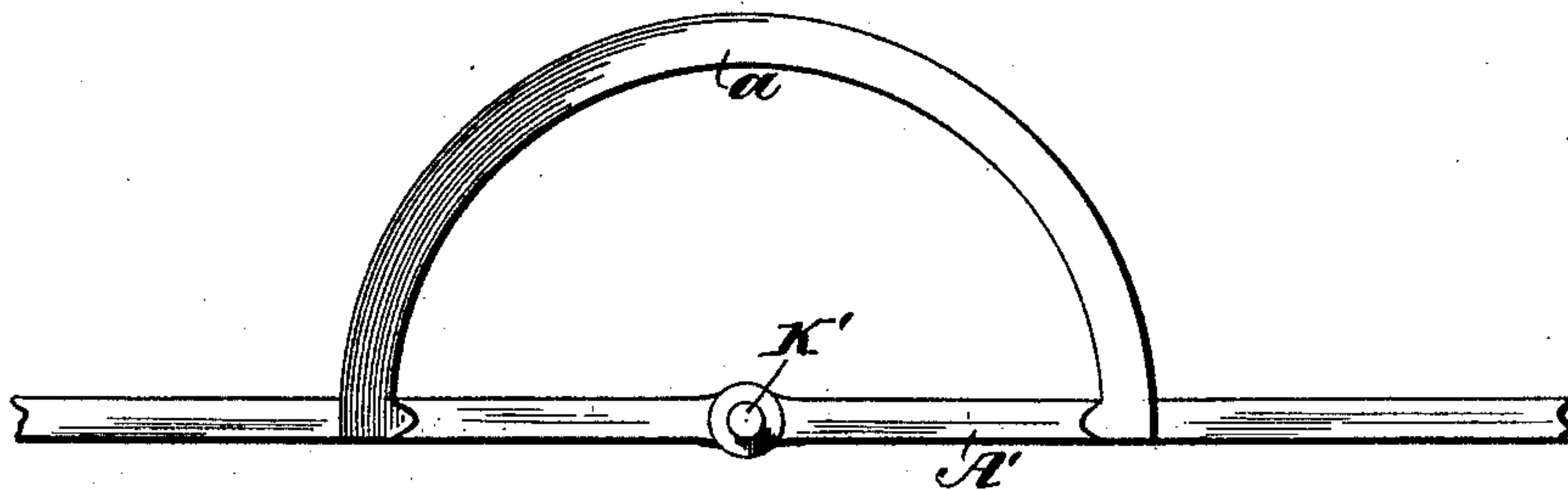
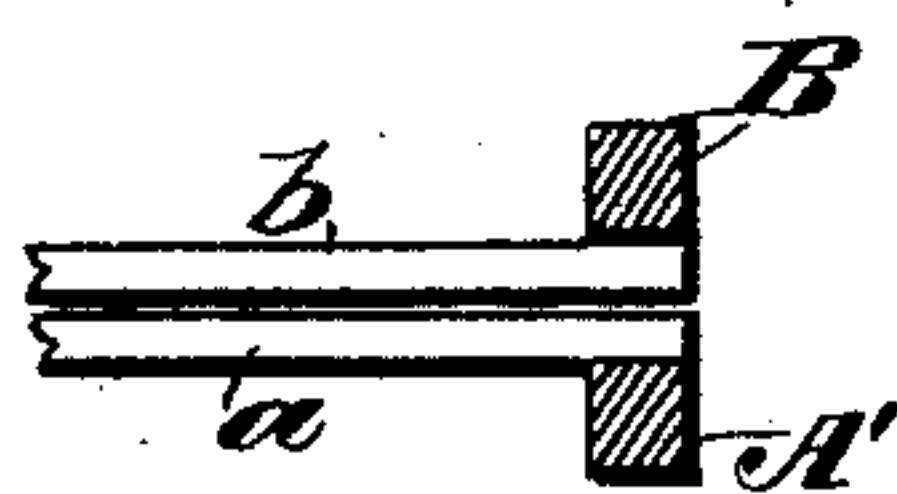


Fig. 4.



Witnesses:

L. M. Dorchon
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By *William R. Baine*
His Atty.

UNITED STATES PATENT OFFICE.

JOSEPH TILTON, OF NEW YORK, N. Y., ASSIGNOR OF ONE-HALF TO RUFUS M. STIVERS, OF SAME PLACE.

VEHICLE-AXLE.

SPECIFICATION forming part of Letters Patent No. 437,263, dated September 30, 1890.

Application filed February 8, 1890. Serial No. 339,727. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH TILTON, a citizen of the United States, residing at New York city, New York, have invented certain new and useful Improvements in Vehicle-Axles; and I do 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, reference being had to the accompanying drawings, and to the letters marked thereon, which form part of this specification.

My invention relates to the axles and running-gear of vehicles; and its object is to dispense with several usual pieces and to do away with clips, whereby the king-bolt and lower circle-iron are fastened to the axle, and to make the king-bolt and circle-iron integral with the axle itself.

In the accompanying drawings, Figure 1 is a front end elevation of the running-gear of a vehicle as heretofore made by me. Fig. 2 is a similar enlarged view of my improved axle, showing the position of the bolster in dotted lines. Fig. 3 is a top plan view of my improved axle, and Fig. 4 is an end view and partial section in the plane of the line *xx* in Fig. 2.

In Fig. 1 I illustrate the style of mechanism which my invention is designed to improve, and which I confidently expect it will supplant. In this figure A is the axle cranked downward. The circle-iron W is secured to the axle A by the clips *w* and *w'*, and possibly by an intermediate plate *a'*. The king-bolt K is secured to the axle by means of the clip *k*. These clips embrace the axle, and as their method of construction and attachment is well known in the art they need not be further referred to. Upon the axle A and turning upon the king-bolt K is the bolster B, made in any approved manner.

In Figs. 2, 3, and 4 I illustrate my improved device. In these figures, A is the axle, preferably made of metal, and made integral with it is the upwardly-projecting spindle K', which serves as a king-bolt, and the lower circle-iron or fifth-wheel *a*. I also make integral with it, when deemed desirable, a depending spindle *k'*, upon which may be secured a brace for the circle-iron, if thought

necessary. The axle and its connections may be made in any manner that may be thought best. It may be cast or forged and ornamented and shaped as the whim of the workman or the exigencies of the situation may demand, provided the essential elements of the combination are preserved. I usually cut away a portion of the metal on each side of the spindles *k'* and K' for the sake of economy, but the resulting shape of the axle is not an essential feature of my invention and does not add to its efficiency.

The purposes of my invention are to secure economy in the manufacture of the gear, to decrease the number of pieces, to prevent any displacement of the attachments, and to permit the body of the wagon to rest as near the ground as possible to avoid overturning. In the construction illustrated in Fig. 1 the axle was cranked to lower the body G as much as possible, and then its good effect was almost lost by the necessity of using clips, which raised the body again. The use of my improvement in an ordinary "runabout" wagon saves about one and a half inch in the vertical position of the body. Making the parts in one piece insures the rigidity of the king-bolt and effectually prevents any lateral displacement due to sudden shock, which sometimes occurs when clips are used.

Having described my invention, what I claim as new is—

1. A vehicle-axle A, provided with the upwardly-projecting spindle K' and the downwardly-projecting spindle *k'* and the circle-iron *a*, the whole made integral, as described.

2. A vehicle-axle A, provided with an upwardly-projecting spindle K' at the center thereof and a downwardly-projecting spindle *k'* vertically underneath the same, and a circle-iron *a*, the latter being semicircular in shape and having its center in the center of the axle, and the whole being made in one piece, as described.

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

JOSEPH TILTON.

Witnesses:

FRANK CORSA,
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