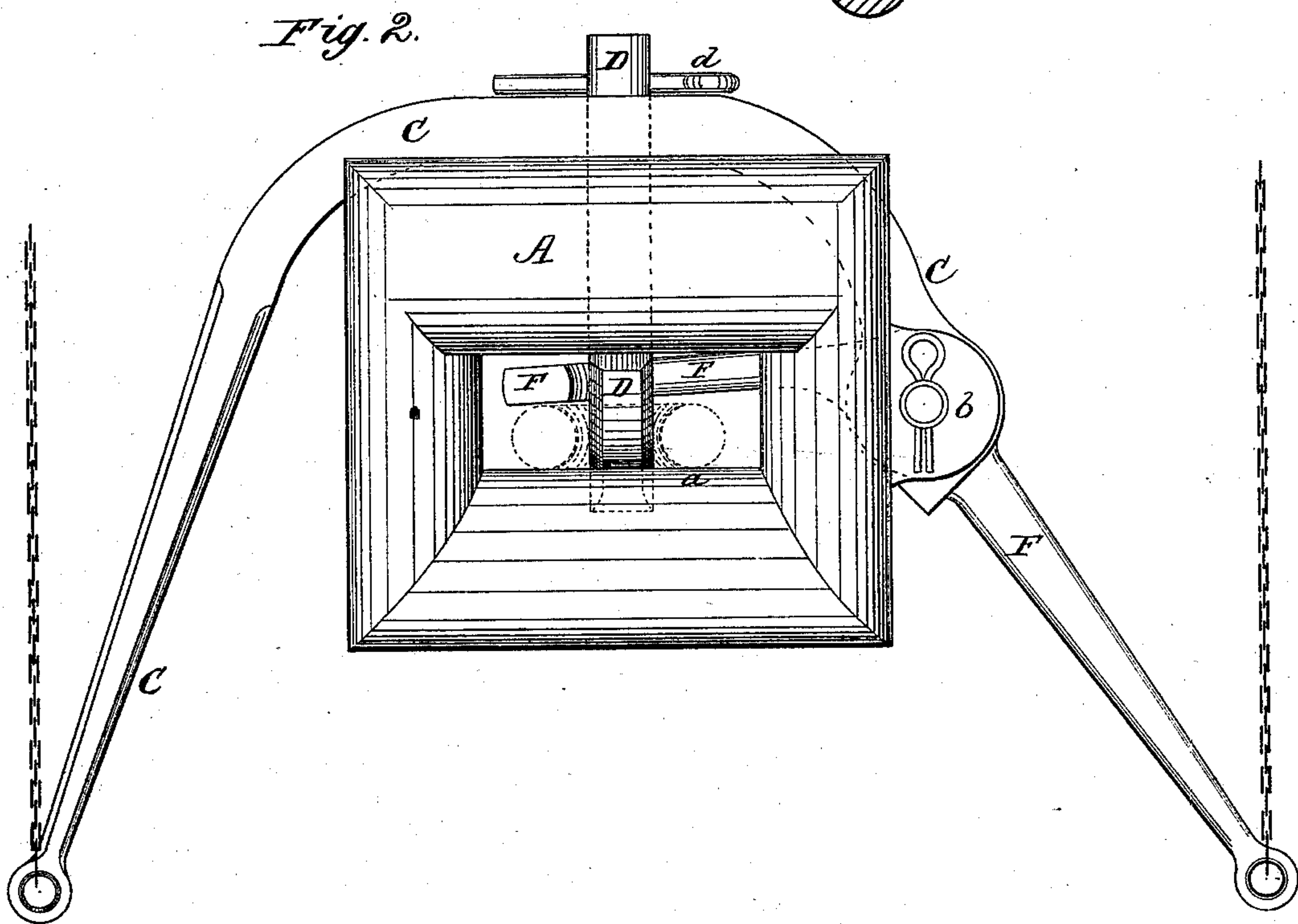
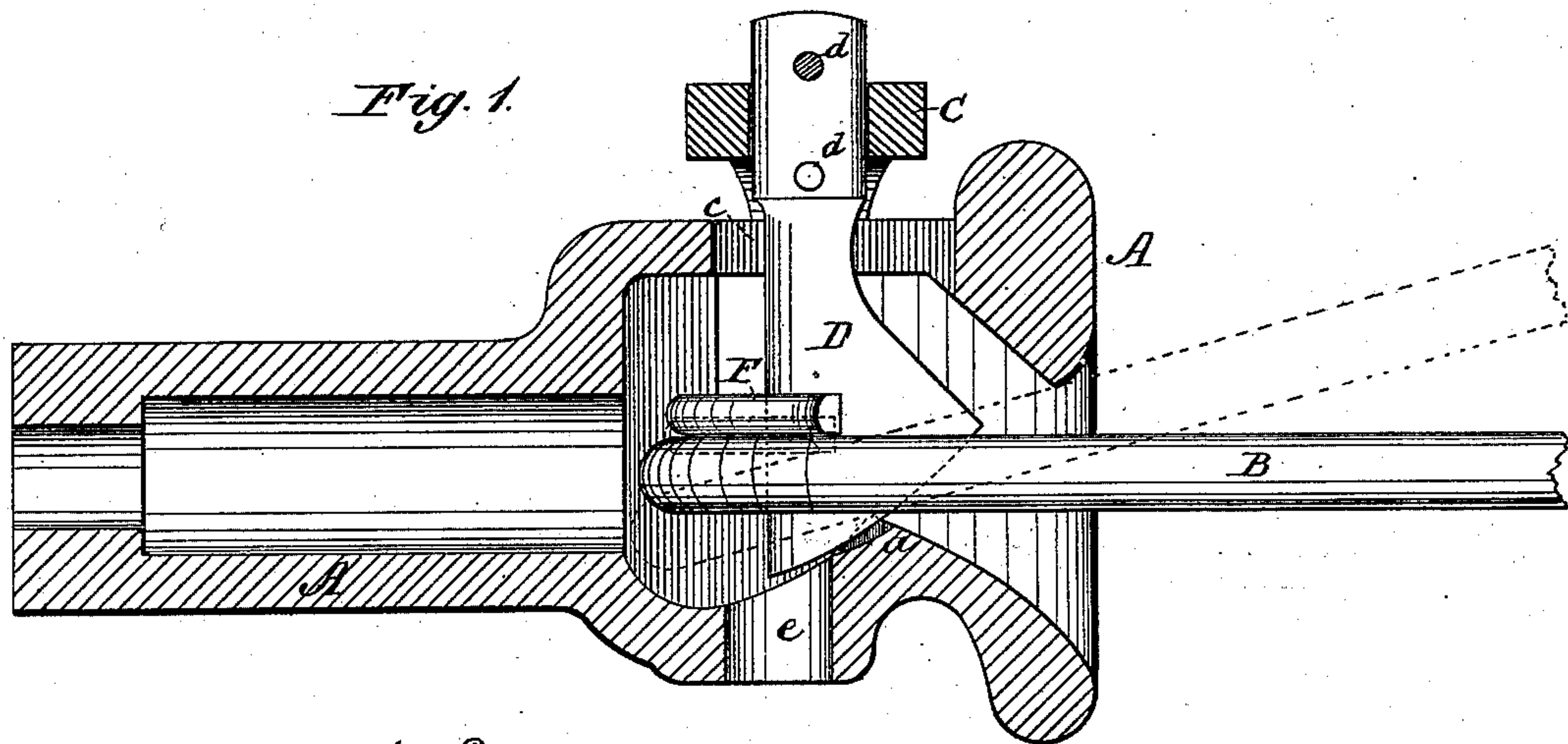


H. E. HENWOOD.  
Car-Coupling.

No. 223,733.

Patented Jan. 20, 1880.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

HORACE E. HENWOOD, OF HAMILTON, ONTARIO, CANADA.

## CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 223,733, dated January 20, 1880.

Application filed November 7, 1879.

*To all whom it may concern :*

Be it known that I, HORACE EDWIN HENWOOD, of Hamilton, Province of Ontario, Dominion of Canada, have invented a new and Improved Car-Coupling; and I do hereby declare that the following is a full, clear, and exact description of the same.

My invention is an improvement upon the automatic car-coupling forming the subject of United States Letters Patent No. 143,011; and it consists in the construction and arrangement of parts, as hereinafter described and claimed.

In accompanying drawings, forming part of this specification, Figure 1 is a longitudinal central section of a draw-head provided with my improvement. Fig. 2 is an end view of the same.

The draw-head or bumper A has a cavity or chamber of the usual form, except that it is provided with a shoulder at *a*, on which the slotted link B rests when held in position for entering an opposite bumper.

A lever, C, is pivoted between lugs *b* on one side of the bumper A, and curves over the top of the latter. A pin, D, is attached to the lever C, and projects down through a slot, *c*, in the bumper. The lower end of said pin is beveled, as shown, to adapt it to be raised by and glide over a link entering the cavity of the bumper, so as to couple cars automatically.

In order to raise the pin D for uncoupling, I attach a chain to the lower free end of the lever and pass it over pulleys, (not shown,) from which it branches to either side and top of the car.

In the aforementioned patented coupling a similarly-beveled coupling-pin is attached to a weighted lever and projects up through a slot in the lower side of the bumper.

By my construction almost the entire weight of the lever C is available for holding the pin D engaged with the link B, and it does not require attachment of a ball or other form of weight to its outer end for that purpose. Thus I am enabled to employ a lever of less weight than is practicable in the former invention.

Another advantage is obtained by the form and arrangement of my lever, since, being curved over or around the draw-head, it does not project obtrusively from the side of the same, and is but little liable to come in contact with other objects or to be broken from its attachment to the bumper.

I also connect the pin D to the lever C, so that it may be readily detached and another substituted when required. The lever is enlarged or thickened at the point of attachment and the pin D inserted in an oval-shaped hole formed thereat, and secured by spring-pins *d*, as shown in Fig. 1.

The lever F is pivoted on the same pin with the lever C, and serves to depress the inner end of the link B, when required for the purpose of coupling cars of dissimilar height.

I provide the lower side of the bumper A with a hole, *e*, to adapt it for use of the ordinary coupling-pin in case of necessity.

I do not claim a lever pivoted to the top portion or corner of a draw-head and extending across the same. Such construction and arrangement would not effectuate my objects, which are to have such length of lever that it will impose on the coupling-pin a sufficient weight to hold it engaged with the link when the cars are in motion, and to have the lever conform as much as practicable to the shape of the top and sides of the draw-head, so that it will not be liable to come in contact with other objects and become broken, &c.

What I claim is—

In a car-coupling, the combination, with a draw-head having a slot in its top, of a lever which is pivoted to the side of the draw-head and curved conformably to the opposite sides and top of the same, and a beveled pin attached to said lever, as shown and described, for the purpose specified.

HORACE EDWIN HENWOOD.

Witnesses:

A. W. BROWN,  
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