Oct. 25, 1949. W. E. HAIST ET AL 2,486,022

SOCKET WRENCH WITH ATTACHED BAR-HANDLE

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FIG 1

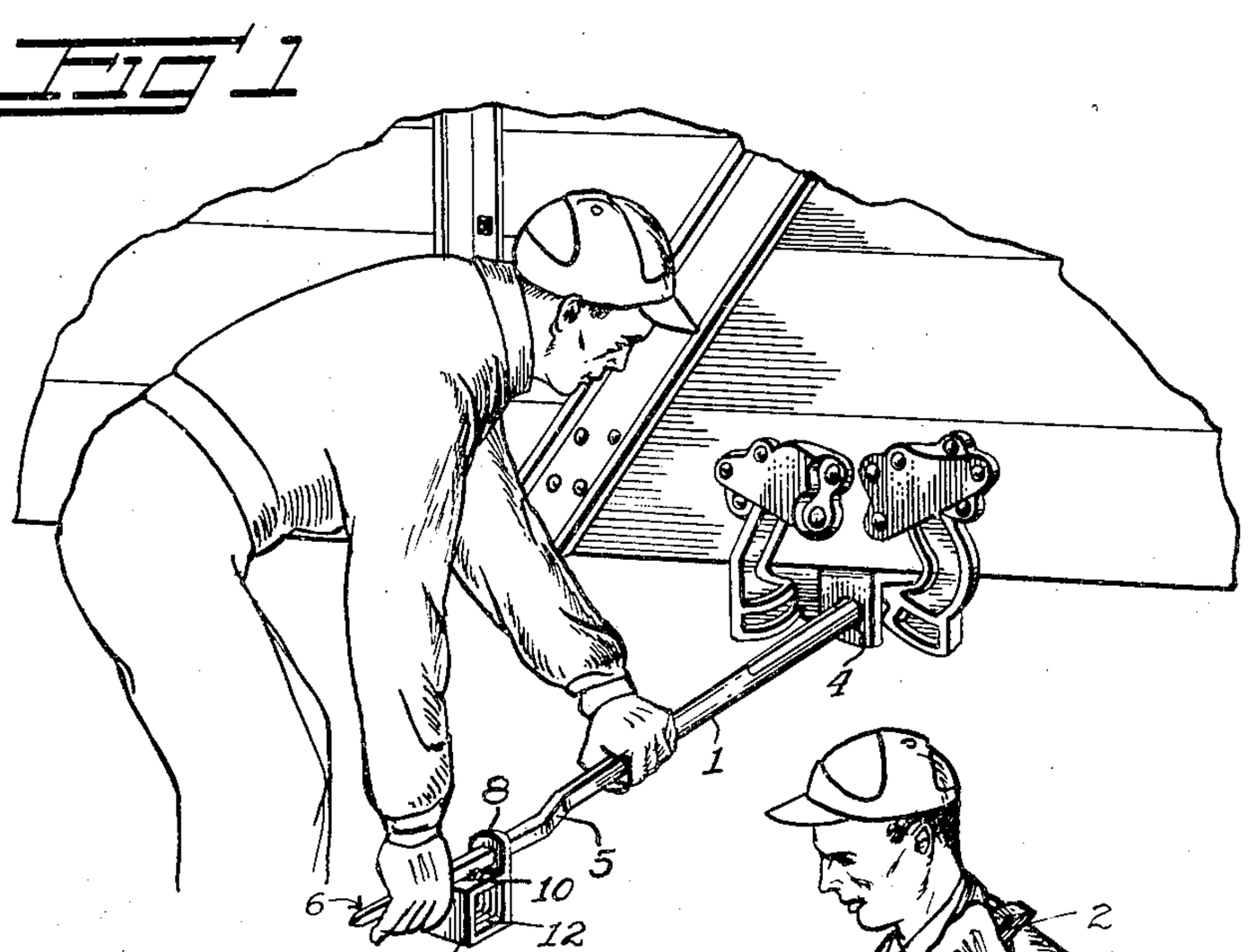
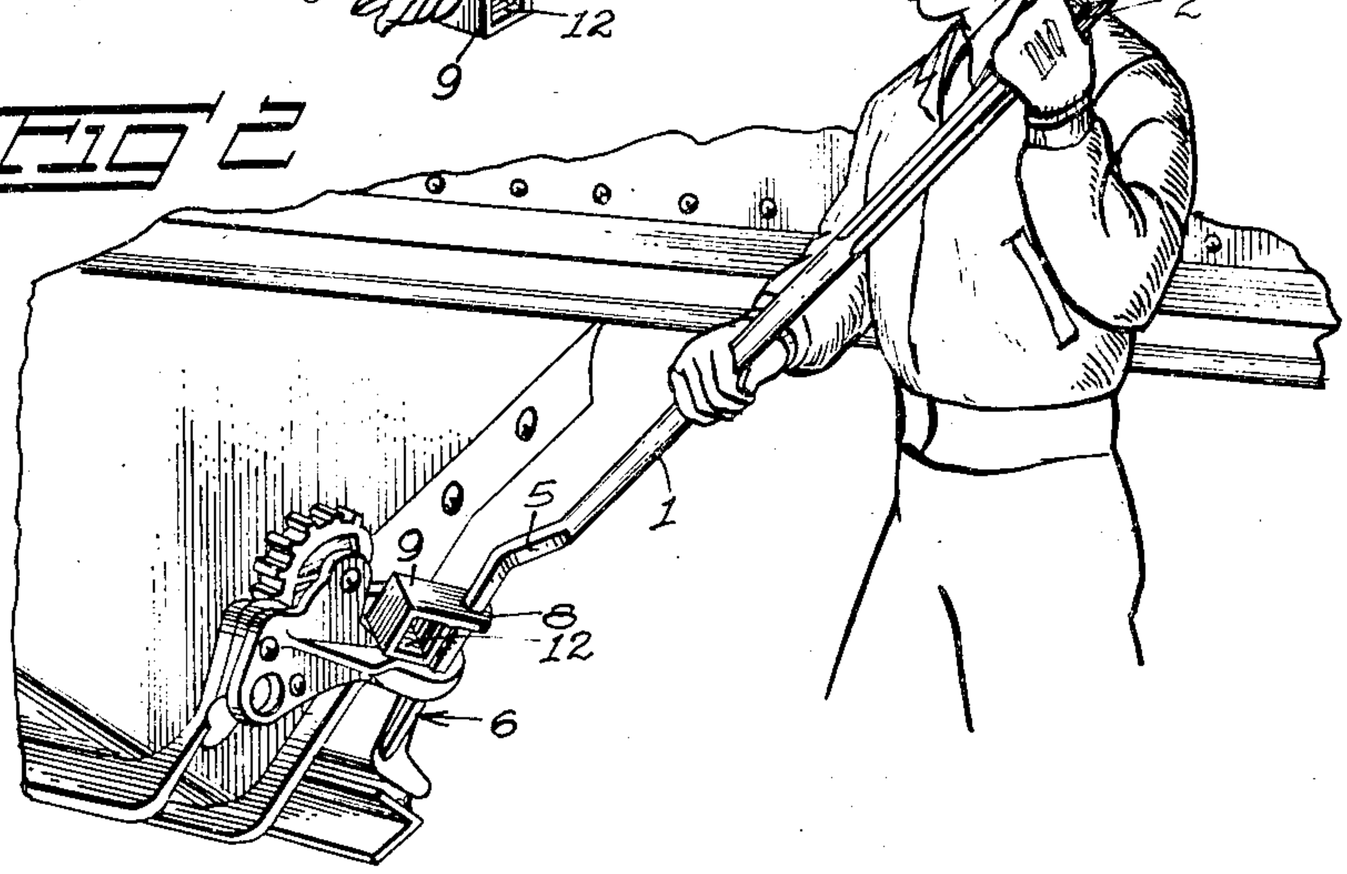


FIG 2



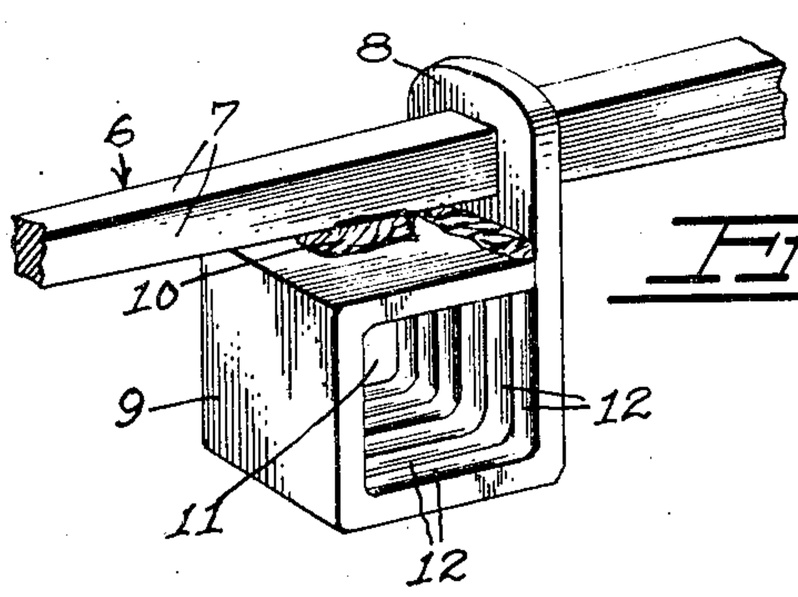


FIG 7

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FIG 3

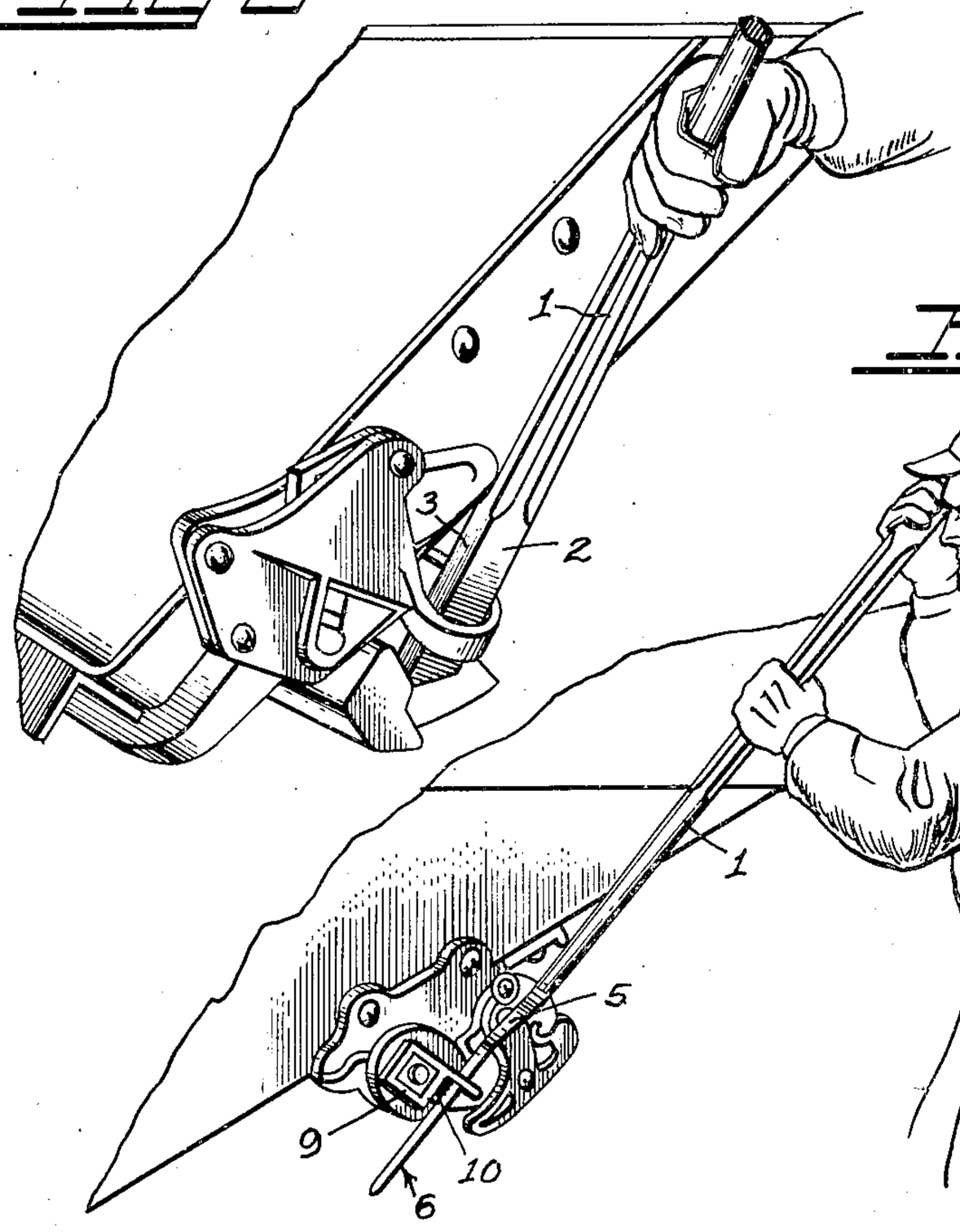

FIG 4

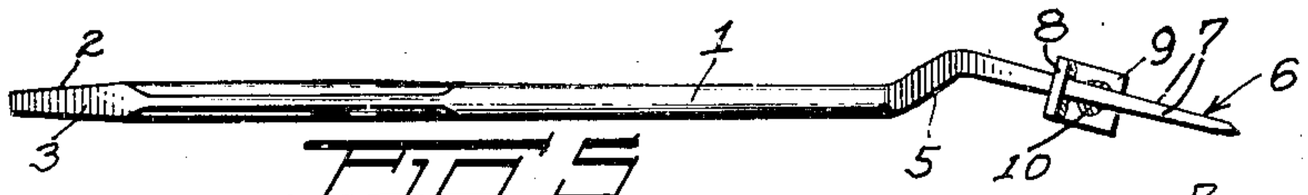

FIG 5

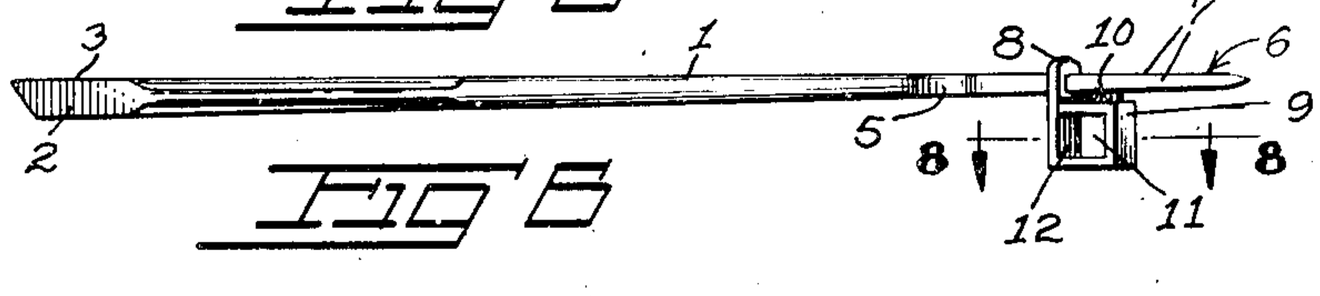

FIG 6

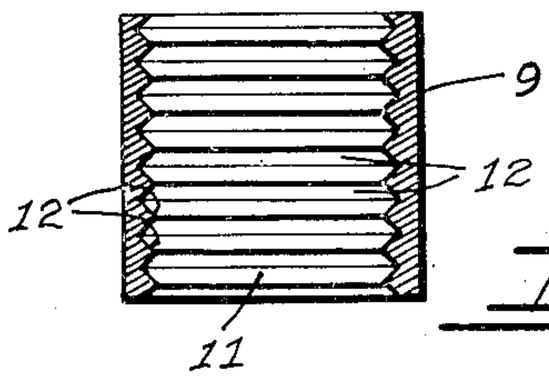

FIG 8

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Patented Oct. 25, 1949 2,486,022

UNITED STATES PATENT OFFICE

2,486,022

SOCKET WRENCH WITH ATTACHED BAR HANDLE

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Application November 17, 1947, Serial No. 786,472

3 Claims. (Cl. 81—121)

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This invention relates to a tool to be used for opening and closing bottom dump doors of open-top railroad cars, and it is a particular object of the invention to provide a tool of this kind which can be employed to particular advantage when the cars are loaded.

In connection with railroad cars, such as cone cars or gondolas, it is necessary to employ men to tighten the bottom doors before the cars are loaded and at the present time it is required that these men each carry 4 different types of bars or wrenches in order to close such doors successfully. It is an object of the present invention to provide a tool which in itself will be sufficient to perform the work.

Another object of the invention is to provide a tool of this kind which can be employed to advantage in the opening and closing of any and all type of drop bottom doors, and which tool operates in a manner to perform all of the necessary operations, thus making the use of additional wrenches or bars unnecessary.

The invention consists in the details of construction and in the combination and arrangement of the several parts of our improved tool for use with freight cars whereby certain important advantages are attained, as will be hereinafter more fully set forth.

In order that our invention may be better understood, we will proceed to describe the same with reference to the accompanying drawings wherein:

Figure 1 is a view in perspective, illustrating a tool constructed in accordance with an embodiment of the invention and being used for opening bottom dump doors.

Figure 2 is a view in perspective showing the tool being used for closing dump doors.

Figure 3 is a view in perspective illustrating the tool for use for opening a bottom dump door of a ratchet lock type.

Figure 4 is a view in perspective illustrating the tool being used to operate a ratchet for either opening or closing the bottom of a hopper car.

Figure 5 is a view in top plan of the tool as herein embodied, and

Figure 6 is a view in side elevation.

Figure 7 is an enlarged fragmentary view in perspective of the wrench and associated portion of the bar.

Figure 8 is an enlarged section through the wrench.

As disclosed in the accompanying drawings, our improved tool comprises an elongated bar 1 of desired dimensions and which has one end portion

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substantially in cross section to provide opposed flat faces 2 and 3. The opposed flat faces 3 are disposed outwardly in convergence on a desired angle with said end portion while the opposed faces 2 are substantially parallel.

The end portion of the tool is used to particular advantage in closing or opening a bottom dump door and in either of which operations said end portion of the tool may be readily inserted through the usual opening 4 in the conventional keeper lug of the latching mechanism.

In Figure 1 is shown the tool being used for opening the bottom dump doors while in Figure 2 it is shown being used for closing the doors. The end portion of the bar 1 can also be employed to advantage, as illustrated in Figure 3, in opening the bottom dump doors of a ratchet lock dump hopper type of car. This end portion of the bar may be termed the butt end.

In the present embodiment of the invention, the bar 1 decreases in diameter from the butt end toward the opposite end and said bar, at a desired point inwardly of its opposite end, is laterally offset, as at 5, with the end portion 6 of the bar outwardly of said offset portion substantially straight and disposed on an angle with respect to the axis of the rear or butt end portion of the bar and of a length to terminate a material distance beyond the axial center of the bar 1 remote from the offset.

This straight portion 6 is substantially rectangular in form from end to end with its opposed flat faces 7 outwardly converging and this straight portion 6 has wedged thereon at a point substantially at the longitudinal center thereof an outstanding lug 8 carried by the side portion of a square socket wrench 9. One side member of this wrench 9 is closed adjacent to the portion 6 of the bar 1 and is welded thereto, as at 10. It is also to be noted that this wrench 9 is of a width to extend beyond opposite sides of the portion 6 and has the axis of its central opening 11 at right angles to the axis of the portion 6.

This wrench 9 allows the tool to be employed to advantage, as illustrated in Figure 4, to operate the ratchet for either opening or closing the bottom of the hopper. To increase the efficiency of the wrench 9, the inner faces of the side members thereof are provided with corrugations 12.

As is clearly illustrated in the accompanying drawings, the part of the end portion 6 of the bar in advance of the lug 8 is pointed and this pointed part is employed advantageously when it is desired to tighten the ratchet of a hopper car to the

last notch to insure safety and also for closing the bottom dump doors of a hopper.

To facilitate the use of the butt end of the bar 1, it is to be noted that its free end is disposed thereacross on a bevel, said bevel being herein disclosed as disposed between the outwardly converging flat faces 3.

The inside of the lug 8 is heavily corrugated, as at 12, so that the tool will be better gripped or engage the usual car door castings which in a great many instances have the corners rounded by reason of being operated by someone using a misfitting wrench or pipe.

From the foregoing description it is thought to be obvious that a tool for use with freight cars constructed in accordance with our invention is particularly well adapted for use by reason of the convenience and facility with which it may be assembled and operated.

We claim:

1. A tool of the character described, comprising a bar having a long part to be gripped in the hands, a short obliquely directed portion at one end of the long part and a terminal portion shorter than the bar and longer than the obliquely directed portion, forming a continuation of the obliquely directed portion and extending back across the longitudinal axis of the said long part, and a socket wrench secured to the said terminal portion upon one side thereof.

2. A tool comprising a bar having a long part to be gripped in the hands for use, a short obliquely directed part at one end of the long part and a terminal part shorter than the said long part and longer than the short part, the short part and terminal part forming an obtuse angle and said terminal part extending back and crossing the longitudinal axis of said long part, the inside of said angle forming the front of the tool as in use, and an open socket wrench secured upon the side of the terminal part with the longitudinal center of the socket wrench perpendicular to the terminal part.

3. A tool of the character described in claim 2, with an apertured ear integral with the side of the socket wrench which is adjacent to said short part, the said terminal part extending through the aperture and having the ear wedged thereon.

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