

G. M. Leslie.

Boiling Soap.

N^o 44,142.

Patented Sep. 6, 1864.

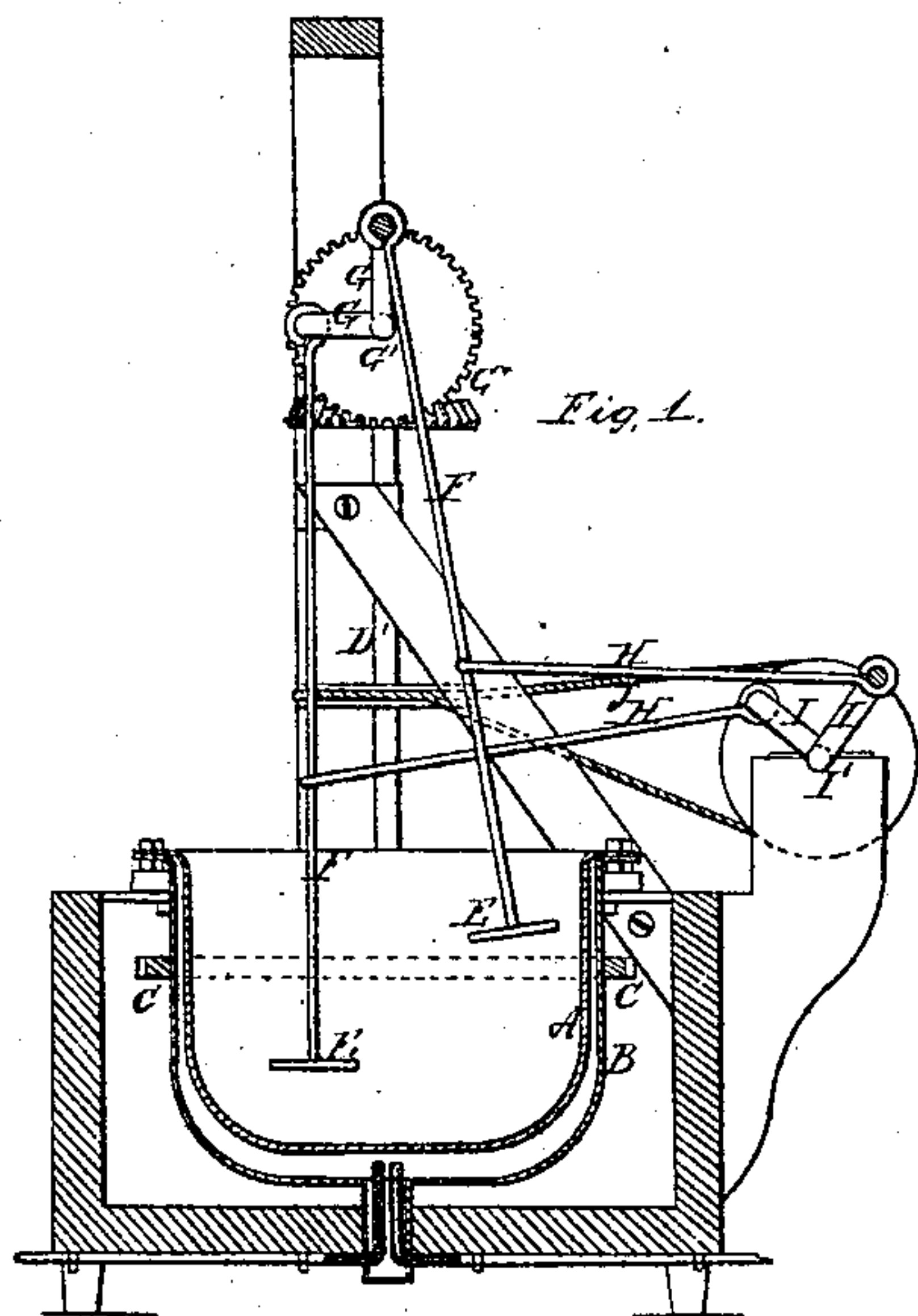
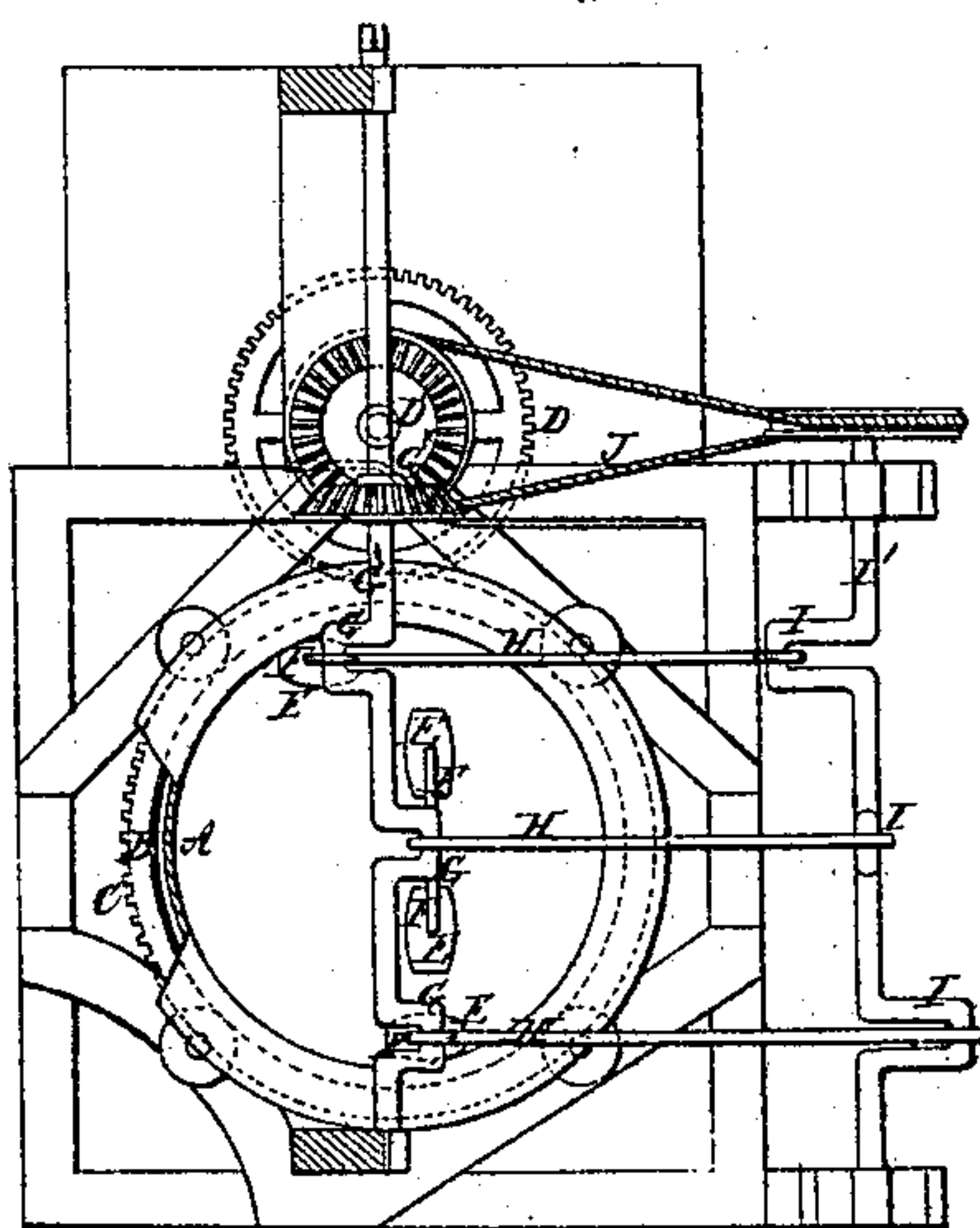


Fig. 1.



Witnesses.
James P. Hall
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UNITED STATES PATENT OFFICE.

G. M. LESLIE, OF NEWBURG, ASSIGNOR TO HIMSELF AND JESSE OAKLEY,
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IMPROVED APPARATUS FOR CRUTCHING SOAP.

Specification forming part of Letters Patent No. 44,142, dated September 6, 1864.

To all whom it may concern:

Be it known that I, G. M. LESLIE, of Newburg, in the county of Orange and State of New York, have invented a new and Improved Apparatus for Crutching Soap; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 represents a vertical central section of my invention. Fig. 2 is a sectional plan or top view of the same.

Similar letters of reference indicate corresponding parts.

The object of this invention is to effect the operation of crutching soap automatically by the action of a certain mechanism driven by steam or other competent power and made to carry the crutches through the kettle in every direction. The mechanism which I employ to effect this purpose will be readily understood by referring to the accompanying drawings and description, though it must be remarked that I do not wish to confine myself to the precise arrangement of parts as shown, but reserve the right to change the same as circumstances may dictate.

A represents a crutching kettle, made of cast-iron or any other suitable material, and provided with a steam-jacket, B, in the ordinary manner. The kettle receives a rotary motion by a toothed rim, C, which gears into a cog-wheel, D, on a vertical shaft, D', said shaft being rotated by steam or other competent power.

The operation of crutching the soap is performed by a series of (two or more) crutches, E, which are secured to handles F and suspended from cranks G. These cranks are arranged in a horizontal shaft, G', which extends across the center of the kettle A, and to which a rotary motion is imparted by suitable bevel-gear, G*, from the vertical driv-

ing-shaft D'. Said cranks are turned at right angles to each other, so that one crutch rises when the other descends, and vice versa, as clearly shown in Fig. 1 of the drawings. The handles F of the crutches are pivoted at about the middle of their length to rods H, which extend to cranks I on the shaft I'. This shaft has its bearings in suitable boxes on the side of the kettle, and motion is imparted to it by a belt, J, from the upright driving-shaft D', or in any other suitable manner. The cranks I are situated at right angles to each other, and by the combined action of the crankshafts G' and I' a double motion is imparted to the crutches—viz., a rising and falling motion by the action of the cranks G and, simultaneously, a transverse motion by the cranks I. By this compound motion the crutches are carried through the entire mass of soap in the kettle, and every particle contained therein is reached and acted upon by one or more of the crutches. The operation of crutching soap can thus be performed in the most simple and effective way. No hand labor is required, and a much larger quantity of soap can be crutched simultaneously than by the ordinary method where the operation is performed by hand.

It is obvious that different mechanical means from those described and shown might be employed to impart motion to the crutches, and I do not wish to confine myself, therefore, to the precise mechanism represented in the drawings.

I claim as new and desire to secure by Letters Patent—

The employment of rising and falling oscillating crutches E, operated by steam or other competent power, in the interior of the crutching-kettle A, substantially in the manner and for the purpose shown and described.

G. M. LESLIE.

Witnesses:

CHAS. S. OAKLEY,
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