

(No Model.)

J. H. BEVINGTON.
UMBRELLA LOCKING DEVICE.

No. 474,356.

Patented May 10, 1892.

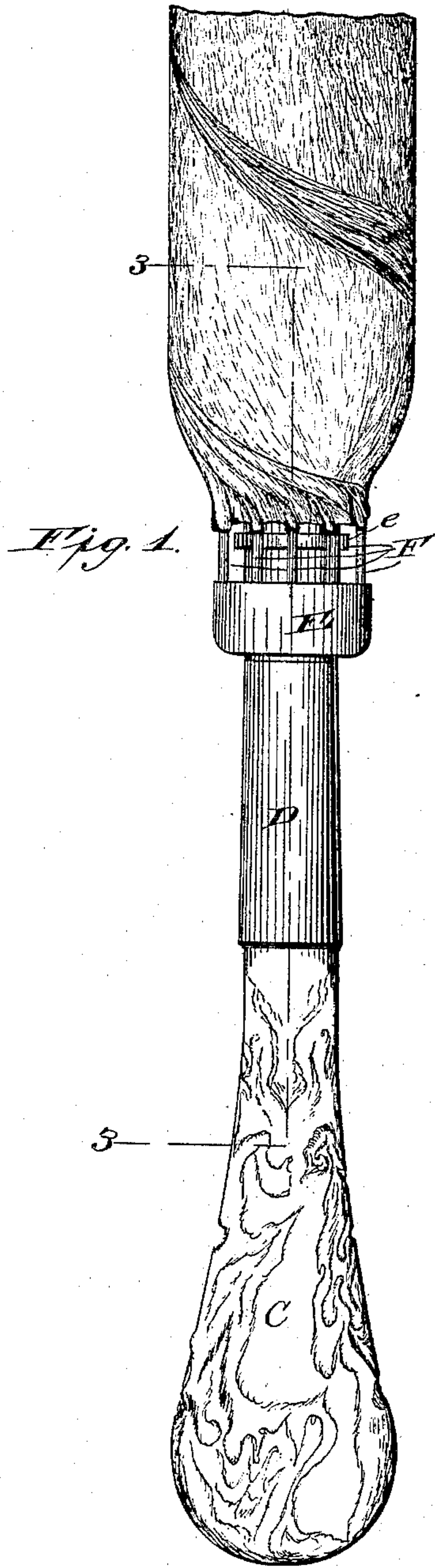


Fig. 1.

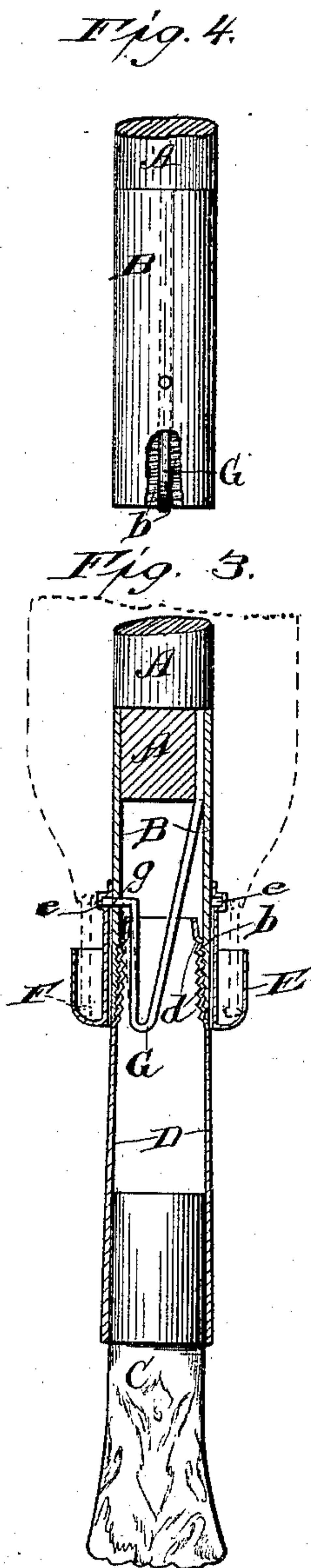


Fig. 4.

Fig. 3.

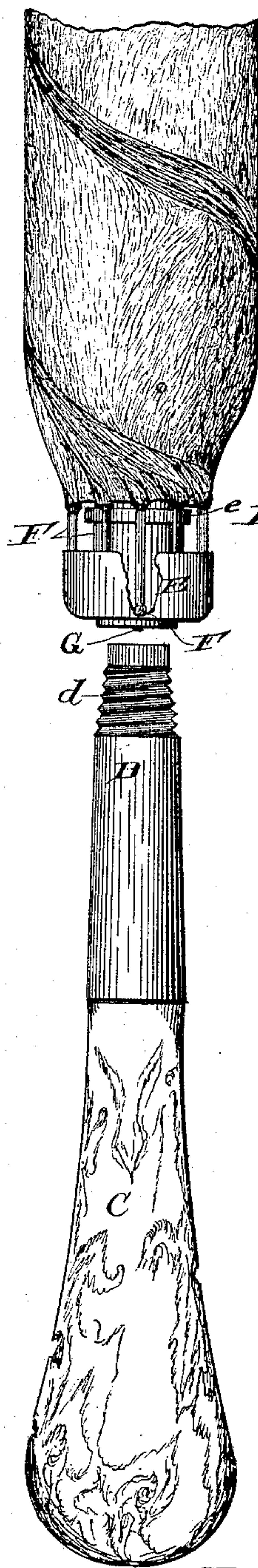
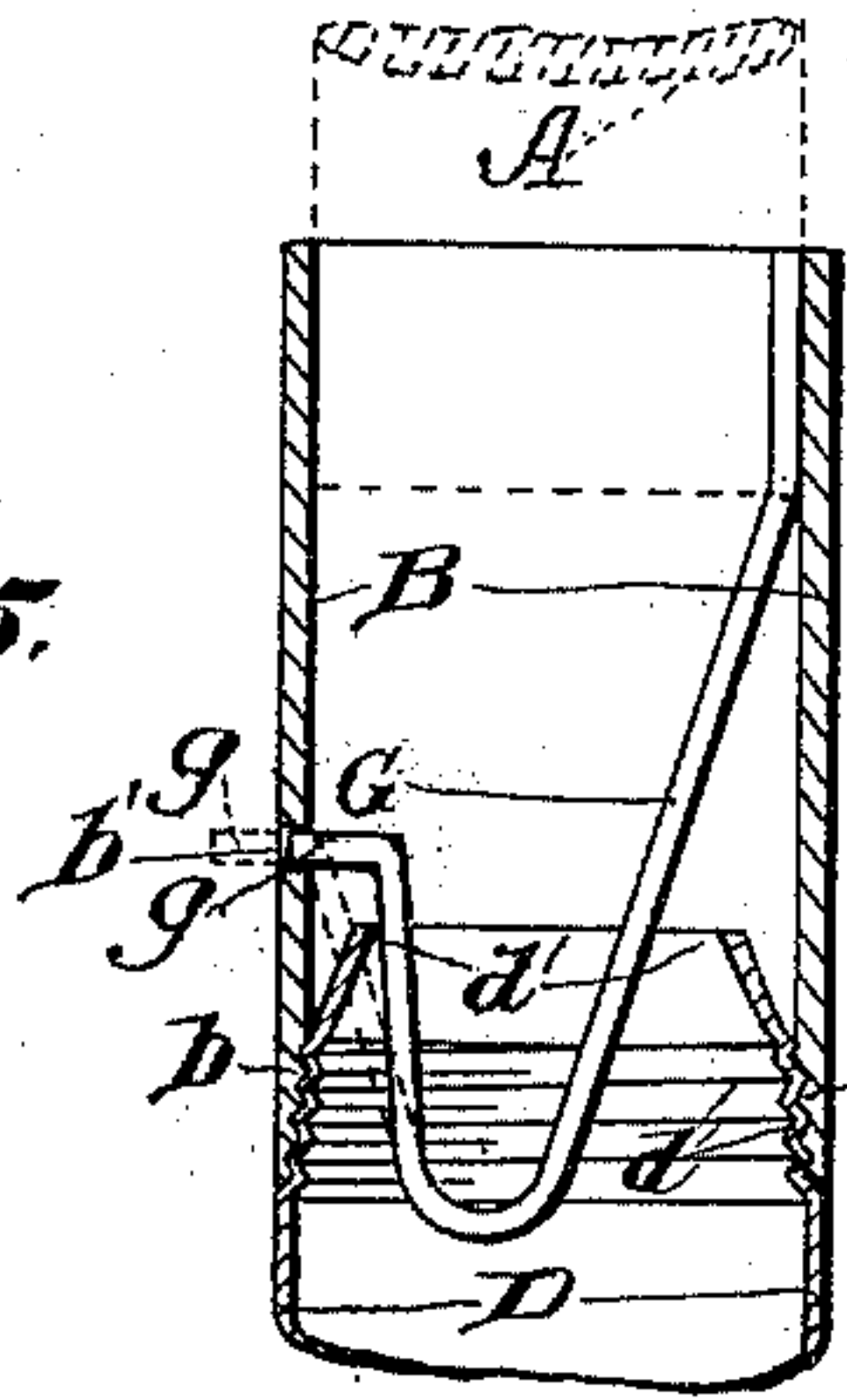


Fig. 2.

Witnesses. Fig. 5.
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UNITED STATES PATENT OFFICE.

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UMBRELLA-LOCKING DEVICE.

SPECIFICATION forming part of Letters Patent No. 474,356, dated May 10, 1892.

Application filed June 15, 1891. Serial No. 396,268. (No model.)

To all whom it may concern:

Be it known that I, JAMES H. BEVINGTON, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a certain new and useful Improvement in Umbrella-Handles, which is fully set forth in the following specification, reference being had to the accompanying drawings, in which—

Figure 1 represents an elevation of the handle end of an umbrella embodying my invention with the handle in place; Fig. 2, a similar view of the same, showing the handle detached; Fig. 3, a detail vertical section taken on the line 3 3 of Fig. 3; Fig. 4, a detail elevation of the upper or handle end of the stick and ferrule attached; and Fig. 5, a detail section showing a part of Fig. 3, but on an enlarged scale.

My invention relates to umbrellas provided with detachable handles; and the object of the improvement is to provide a spring-lock for the ring-holder which is used to fasten the tips of the ribs when the umbrella is closed, this lock being constructed and arranged to operate upon the removal of the handle from the stick and to be released upon the replacement thereof.

I will proceed to describe in detail one way in which I have carried out my invention in practical form, and will then point out more definitely in the claim the particular improvements which I believe to be new and wish to secure by Letters Patent.

In the drawings, A represents an ordinary umbrella-stick, which is provided at the handle end with a ferrule B, the latter being extended, however, some distance beyond the stick, so as to provide a kind of tubular socket at the extremity of which is an internally-threaded section *b*. The handle C is a separate piece and is adapted to be attached to and detached from the stick. This, as shown in the drawings, is accomplished by providing the handle with a ferrule D, which is also extended some distance beyond the inner end of the handle and has an externally-threaded section *d* upon its extremity, which is adapted to turn into the threaded end of the ferrule B, thus providing for readily connecting the handle to the stick or disconnecting it therefrom at pleasure. In order to make a smooth

joint between the stick and the handle, the respective threaded sections are preferably slightly conical, so that there will be no projection of either at the meeting line, as seen in Fig. 5. An ordinary ring-holder E is mounted on the end of the stick, or rather its ferrule, being of the usual construction to adapt it to engage and hold the tips F of the ribs, for this purpose being constructed to slide back and forth on the jointed ferrules. In addition to the usual form of this device it is also provided near its inner end with a shallow annular groove *e*, running around the inside thereof, as seen in Fig. 3. This may be formed by striking up in the plate from which the ring is formed or in any other suitable way. A spring latch or lock G is mounted within the tubular projection of the ferrule B. This spring is attached at its inner end to the end of the stick by inserting it between the ferrule and the stick. Thence it extends forward and is inclined inward slightly, about the length of the ferrule, more or less, and is then bent over upon itself and carried backward some distance, and its extremity is then bent outward sharply at right angles to the length of the tube, thus providing a short round pin-like projection *g*. The bend of the spring is made such that its force will act normally to throw this free end of the spring outward, and a small opening *b'* is made in the side of the ferrule, so that this end of the spring will be thrust out therefrom and project on the outside of the ferrule under normal force of the spring. The arrangement of these parts is such that when the ring holder E is slipped down, so as to engage the tips of the ribs, as seen in Figs. 1 and 3, the opening *b'* in the ferrule will register with the groove in the ring, as seen in Fig. 3, and, obviously, if the spring is free to act the end *g* will be thrust outward through the ferrule and into the said groove, thereby locking the ring in position. Now the end of the handle-ferrule D is drawn in somewhat, so as to make a cone-shaped extremity *d'*, as seen more clearly in the enlarged Fig. 5. When the handle is connected to the stick, this cone-shaped extremity of the ferrule passes down on the outside of the spring and forces the latter inward, thereby retracting the latch end, as seen in Figs. 3 and 5; but

when the handle is disconnected from the stick, the spring being released from restraint will thrust the latch end outward, as seen in dotted lines in Fig. 5, when it engages, as already explained, with the ring slipped down over the tips and securely fasten it in this position, so that when the handle is completely detached, as seen in Fig. 2, the ribs will be held in place by reason of the locking of the ring-holder upon their tips in the position shown in Fig. 2.

The object of this device is twofold. It provides for the protection of the umbrella, as by locking the parts in position when the handle is detached to facilitate the packing of the article. It also is available to prevent theft of the umbrella whenever the latter is to be left at any place. The bearer simply detaches the handle and carries it away with him, leaving the rest of the umbrella (shown in Fig. 2) with the ribs locked by the ring, as already explained. The theft of the article in this condition is hardly probable, as it is not in a condition for use. Upon replacing the handle, however, the lock is released and the umbrella may be ready for use. There is no particular object in locking the tip-holder in place when the umbrella is in use or simply to be carried, and so provision is not made for it, although the devices may be constructed and arranged so as to also lock in this condition. The device may also be used without a detachable handle, if desired, a button or

something of the kind being employed to depress the spring.

Changes may be made in the construction and arrangement of devices for accomplishing the purpose herein described, and especially the spring may be differently formed and provided with two or more latch ends, so that the locking of the ring-holder will be effected at two or more different points, if desired; and the retraction of the spring may be effected in any suitable way other than that herein described. Hence I do not wish to be understood as limiting myself to all the details of construction and arrangement of the devices, as herein shown and described.

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

An umbrella-stick A, in combination with a ferrule B, projecting from its extremity and provided with the threaded section *b* and aperture *b'*, the handle C, the ferrule D, projecting from the handle and provided with the threaded section *d* and cone-shaped extremity *d'*, the sliding rib-holder E, provided with annular groove *e*, and the spring G, arranged within the ferrule B and bent to be retracted by the tubular end of the handle-ferrule as it passes in over it, substantially as described.

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Witnesses:

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