

W. RILEY, Jr.

Dumping Car.

No. 108,632.

Patented Oct. 25. 1870.

Fig. 1.

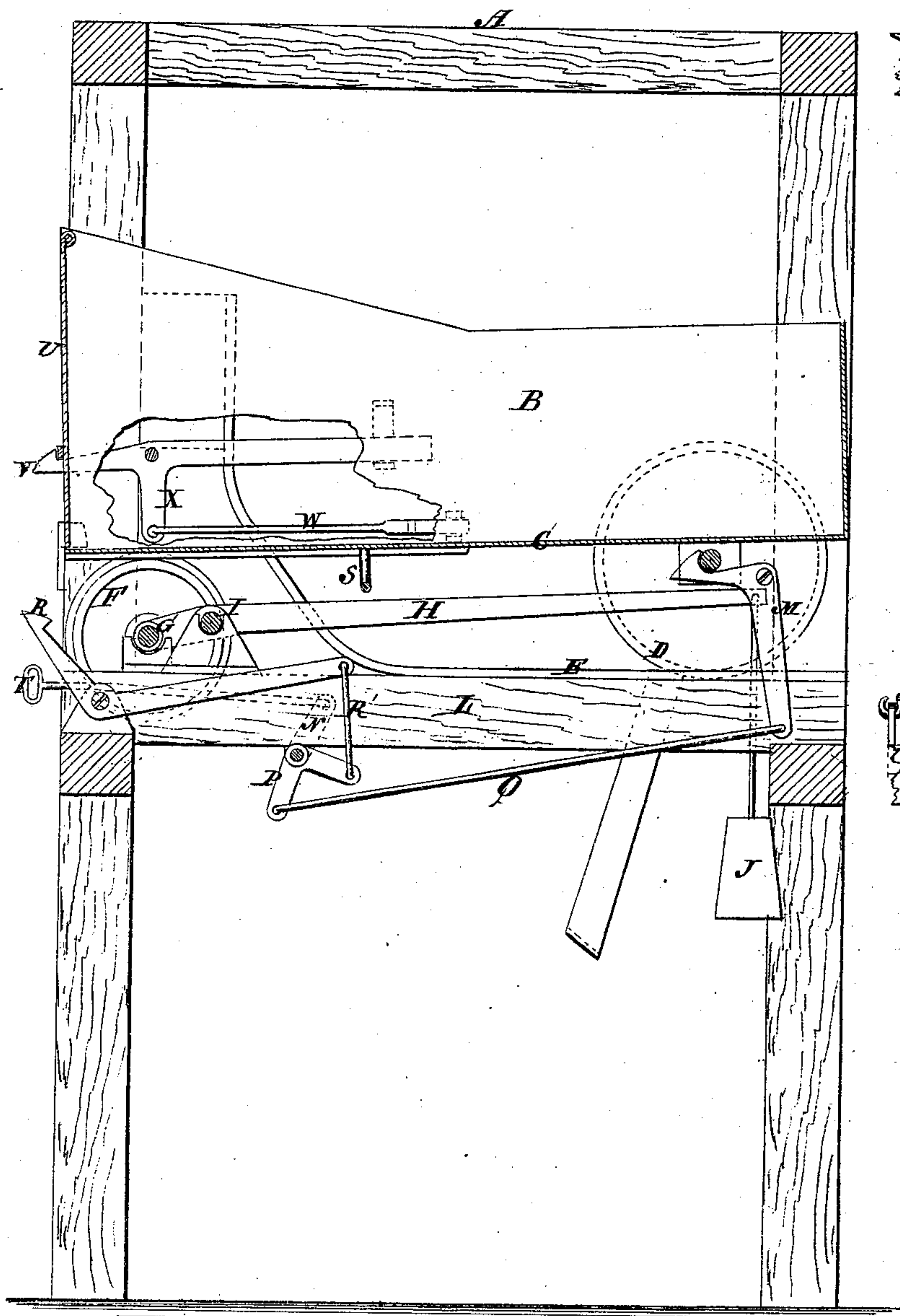
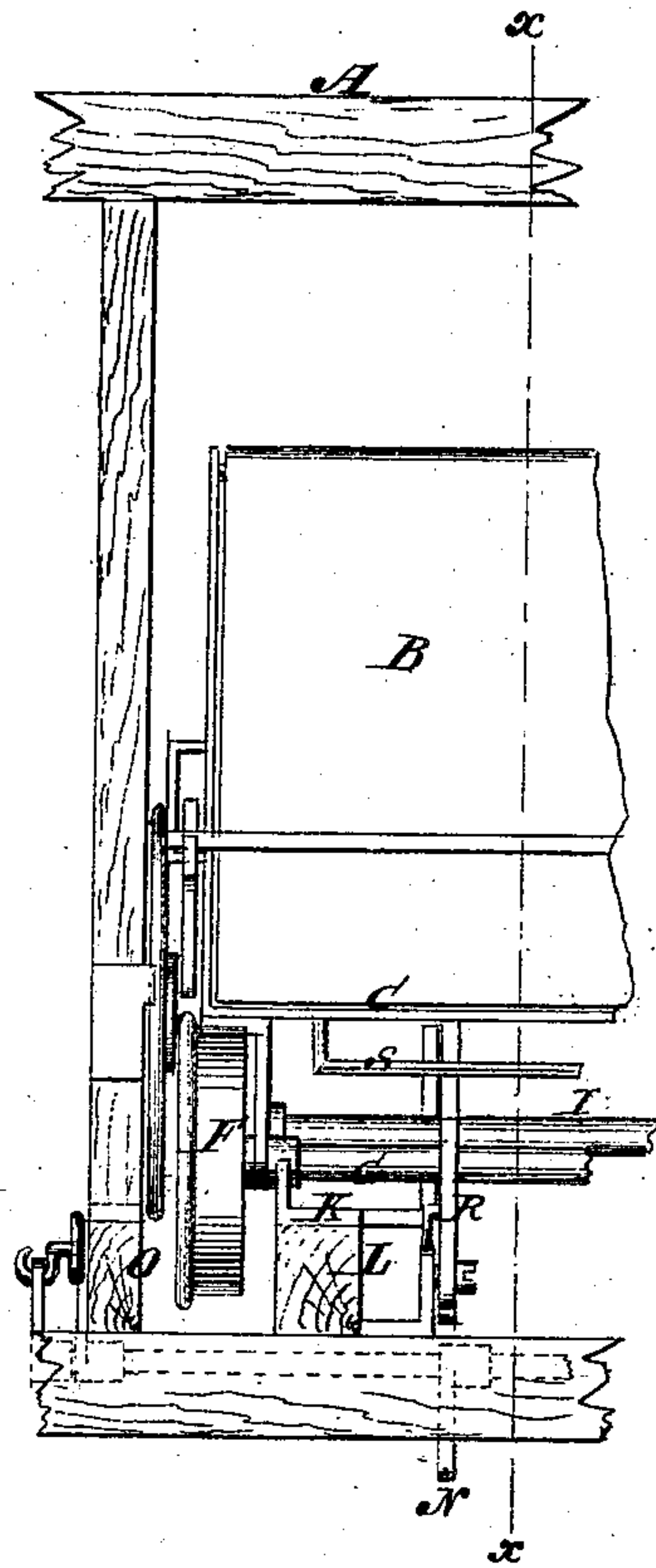


Fig. 2.



Witnesses:

E. W. H. W. H.
L. J. H. W. H.

Inventor:

W. Riley Jr.
per *[Signature]*
Attorneys:

WILLIAM RILEY, JR., OF TERRE HAUTE, INDIANA.

Letters Patent No. 108,632, dated October 25, 1870.

IMPROVEMENT IN DUMPING-CARS.

The Schedule referred to in these Letters Patent and making part of the same

To all whom it may concern:

Be it known that I, WILLIAM RILEY, Jr., of Terre Haute, in the county of Vigo and State of Indiana, have invented a new and useful Improvement in Dumping-Car; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawing forming part of this specification.

This invention relates to a new and useful improvement in cars for dumping coal, wood, or other substances or material, whereby much time and labor is saved; and

It consists in the construction and arrangement hereinafter described.

In the accompanying drawing—

Figure 1 represents a vertical longitudinal section of the car, and the mechanism connected therewith, taken on the line *x x* of fig. 2.

Figure 2 is a sectional front-end view.

Similar letters of reference indicate corresponding parts.

The frame A shown in the drawing represents a section of a coal or wood-shed at a railroad-station, and my improvement is more especially designed to facilitate the operation of supplying the tender of a locomotive with coal and wood; but it is applicable to other purposes.

By my mode of constructing and arranging the car, and by the mechanism connected therewith, the dumping and movement of the car is made automatic.

B is the body of the car.

C is the bottom, to the rear end of which there is attached an axle, with flanged wheels D, which run upon the track E.

The forward end of the car is supported on the dumping-wheel F, the bottom of the car being guided by flanges on those wheels.

The wheels F are attached to an axle, G, which is supported in bearings in the short ends of two levers, H, (one on each side,) which levers have their fulcrums on the parallel bar I.

The long ends of these levers extend back beneath the car, and are provided with weights J, as seen in the drawing.

The forward portion of the track E is inclined upward.

As represented in the drawing, the dumping-car is in a position for receiving its load in the coal-shed. The load in the car will depress the forward or dumping-wheels F until their axle strikes the stops *k k* on the timber L. This throws the loaded car into an inclined position, with a tendency to run forward, but it is held back by the hook-lever M, as seen in fig. 2.

N is an arm on each end of a shaft, which passes beneath the timbers O O.

On this shaft, beneath the car, is a bell-crank, P, to which the hook-lever M is attached by the rod *q*.

R is another hook-lever, which engages with the

cross-iron S on the under side of the car, for holding the car in position after it has been dumped.

Its long end is connected with the bell-crank by the rod R'.

To each of the arms N (seen partly in dotted lines on the shaft before mentioned; the shaft is seen also in dotted lines in fig. 2,) a rod, T, is attached, (see fig. 1,) with a handle at the end.

The car being loaded and ready for being dumped into the tender, the fireman on the tender pulls the rods T, which releases the hook M from the axle at the back end of the car, and the car, being in an inclined position, moves forward by its own gravity till the wheels D strike the inclined portion of the track E, when the center of gravity of the car will be in advance of a vertical line drawn from the center of the wheels F, in which position the car will tip and discharge its contents.

In tipping, the end-board U of the car (which is pivoted or hinged at its upper edge to the sides of the car) is released from the hooks V, which allows the contents to slide out of the car.

One of the hooks V is seen in dotted lines on the side of the car. This hook is drawn down by the small rod W, which receives a slight longitudinal movement as the end of the car descends.

When this movement takes place a hook on its end strikes a stop on the frame, which draws down the hook V by means of the arm X, to which the rod is attached.

When the car is dumped, it is held in that position by the hook R, as before stated, as long as the fireman may desire, for entirely clearing the car of its contents. He releases it from this position by again pulling the rods T.

When thus released, the center of gravity of the car will be back of the vertical line before mentioned; and the rear wheels D, being on the inclined track E, the car will move back by its own gravity to the position seen in fig. 1, ready for another load.

It will thus be seen that the car moves automatically both back and forward, and that its center of gravity, when loaded, is forward of the center of the dumping-wheels F, and back of such center when empty.

The advantages of this arrangement for supplying locomotive-tenders with fuel, and for other purposes, are many, and must be obvious to all who are acquainted with the subject.

Having thus described my invention,

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

The dumping-wheels F and axle, combined as described with stops K, hook-levers M R, rod *q*, bell-crank P, arms N, rod R', and levers T, for the purpose set forth.

WILLIAM RILEY, JR.

Witnesses:

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