

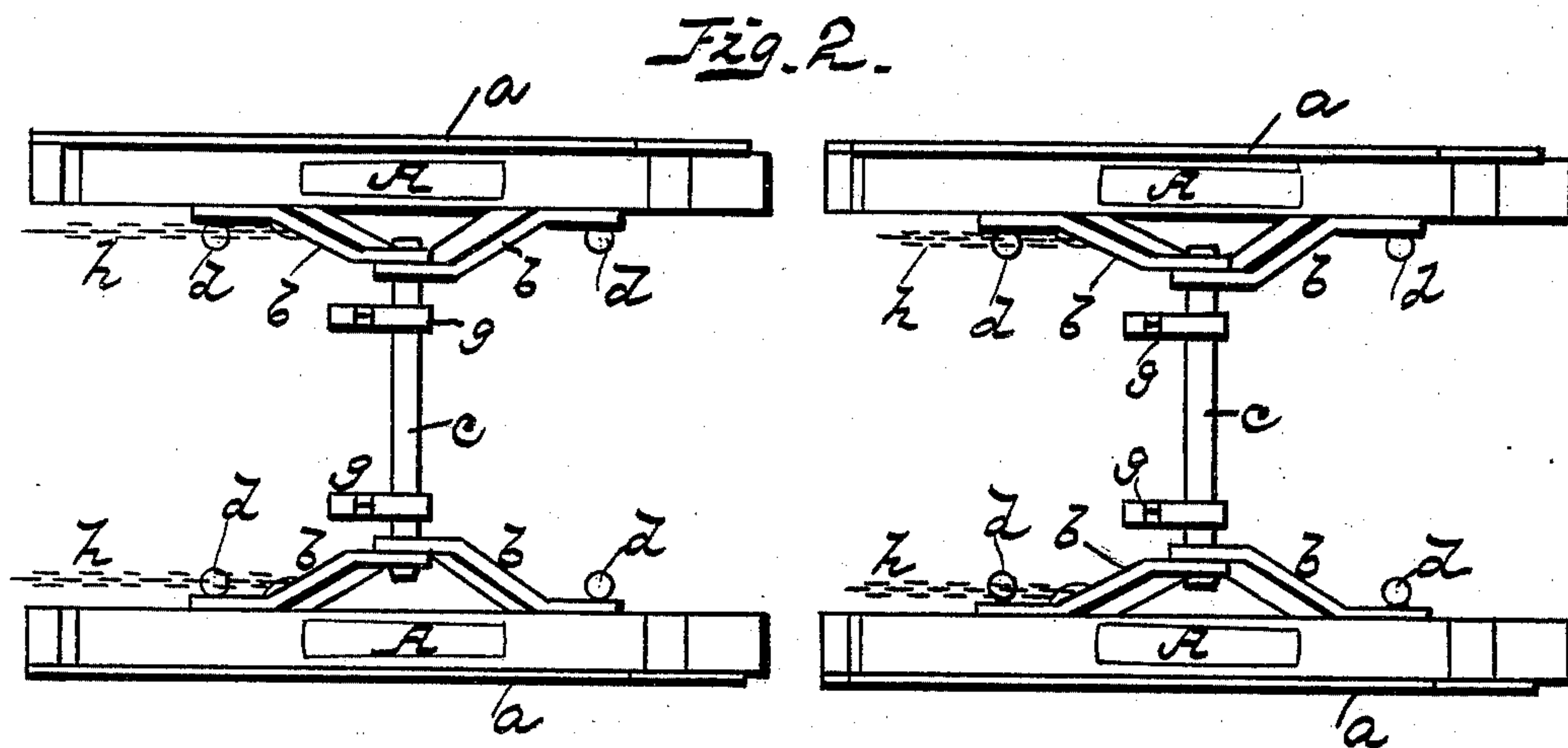
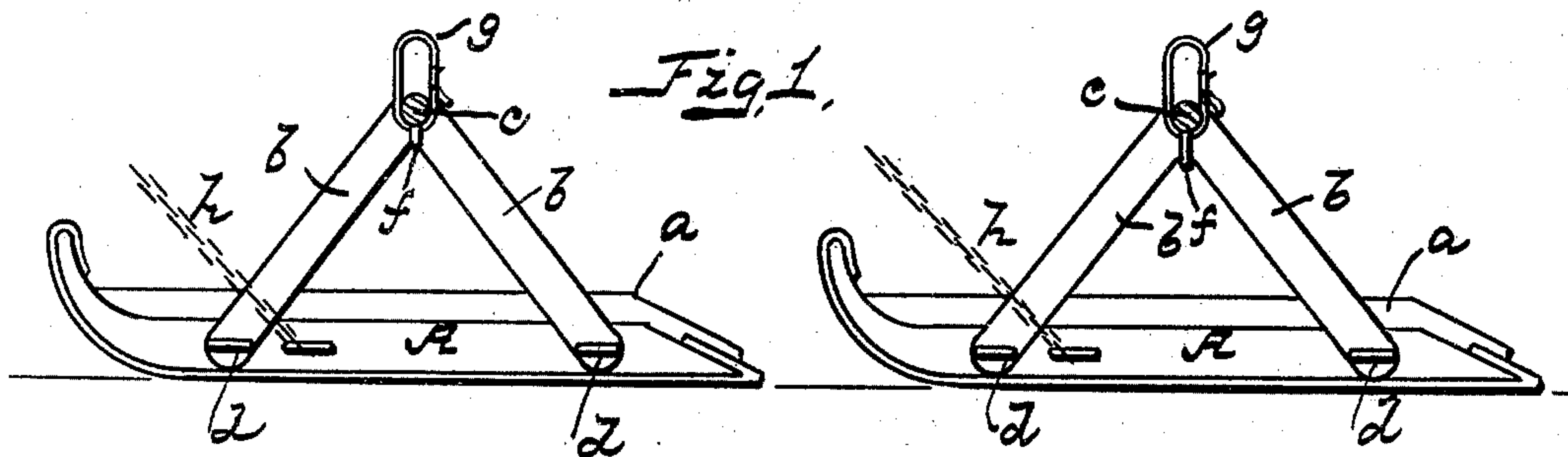
(No Model.)

2 Sheets—Sheet 1.

J. RADLEY.  
SLEIGH RUNNER.

No. 448,754.

Patented Mar. 24, 1891.



WITNESSES

Jas. A. Clarke  
M. M. Mason

INVENTOR.

John Radley  
By E. H. Bates Attorney

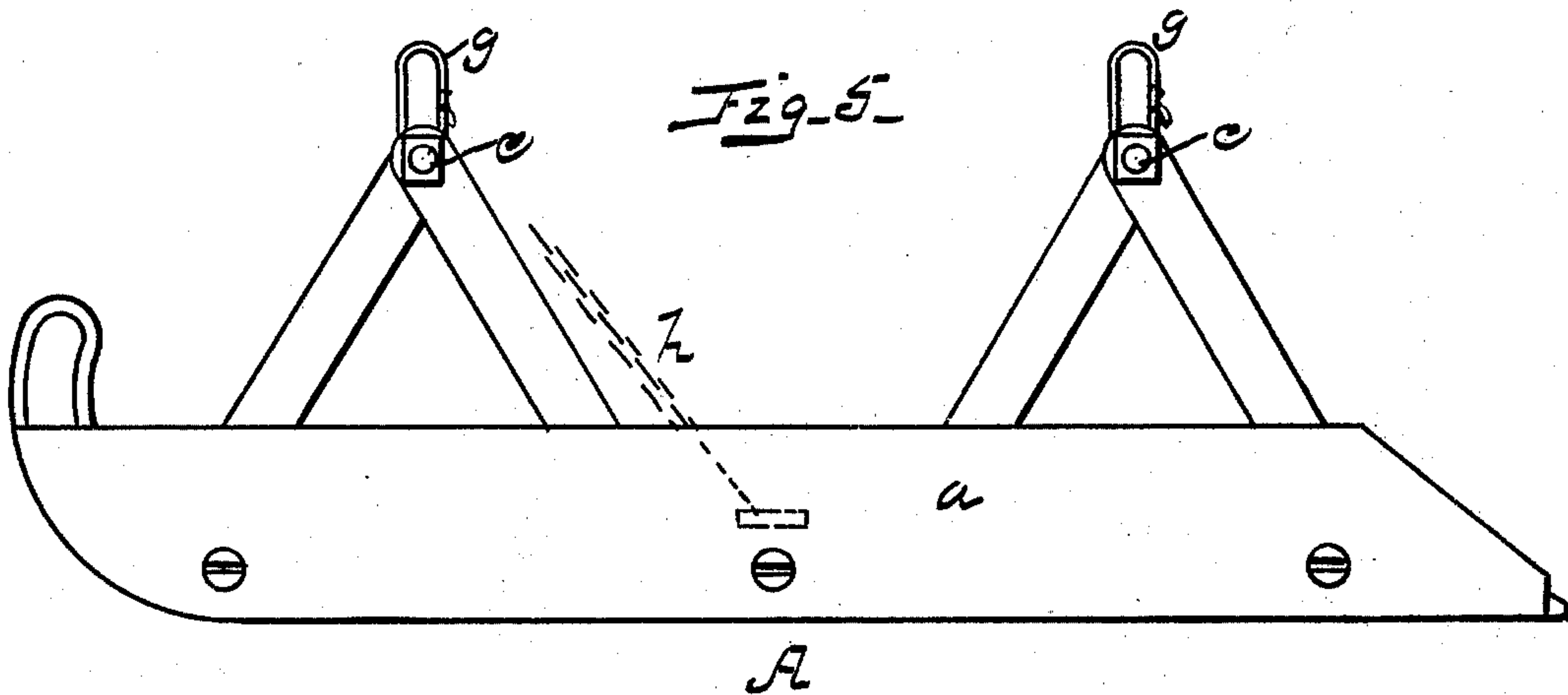
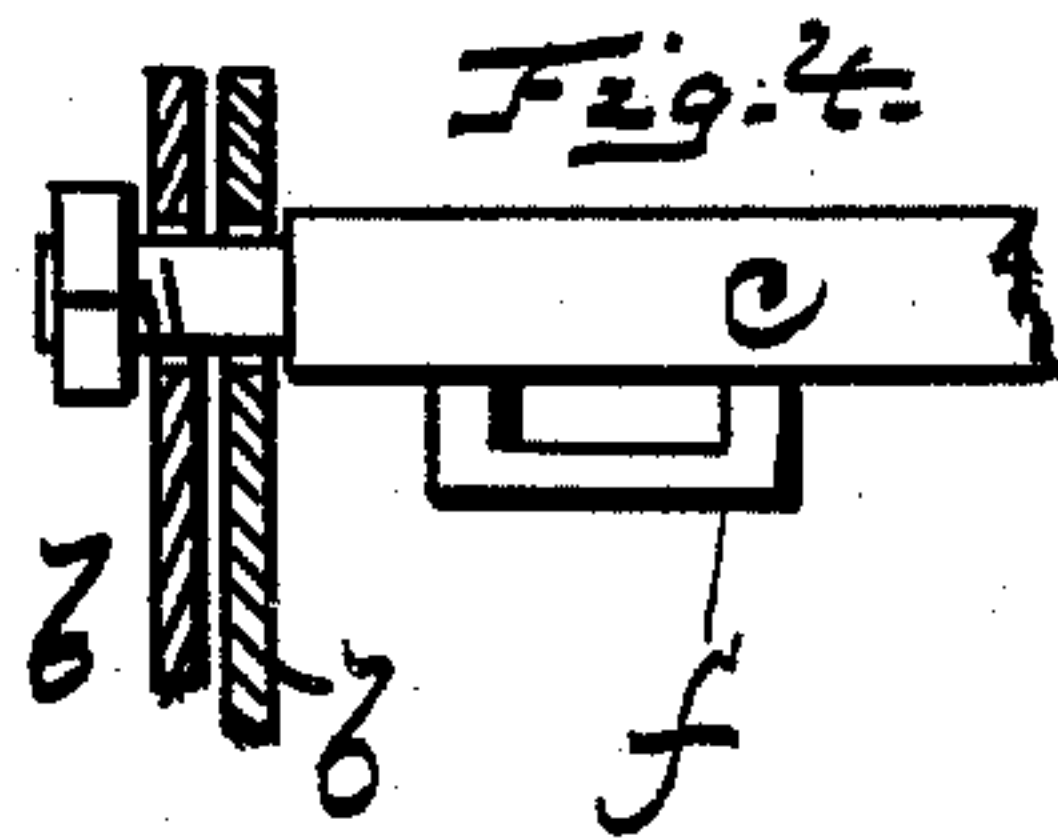
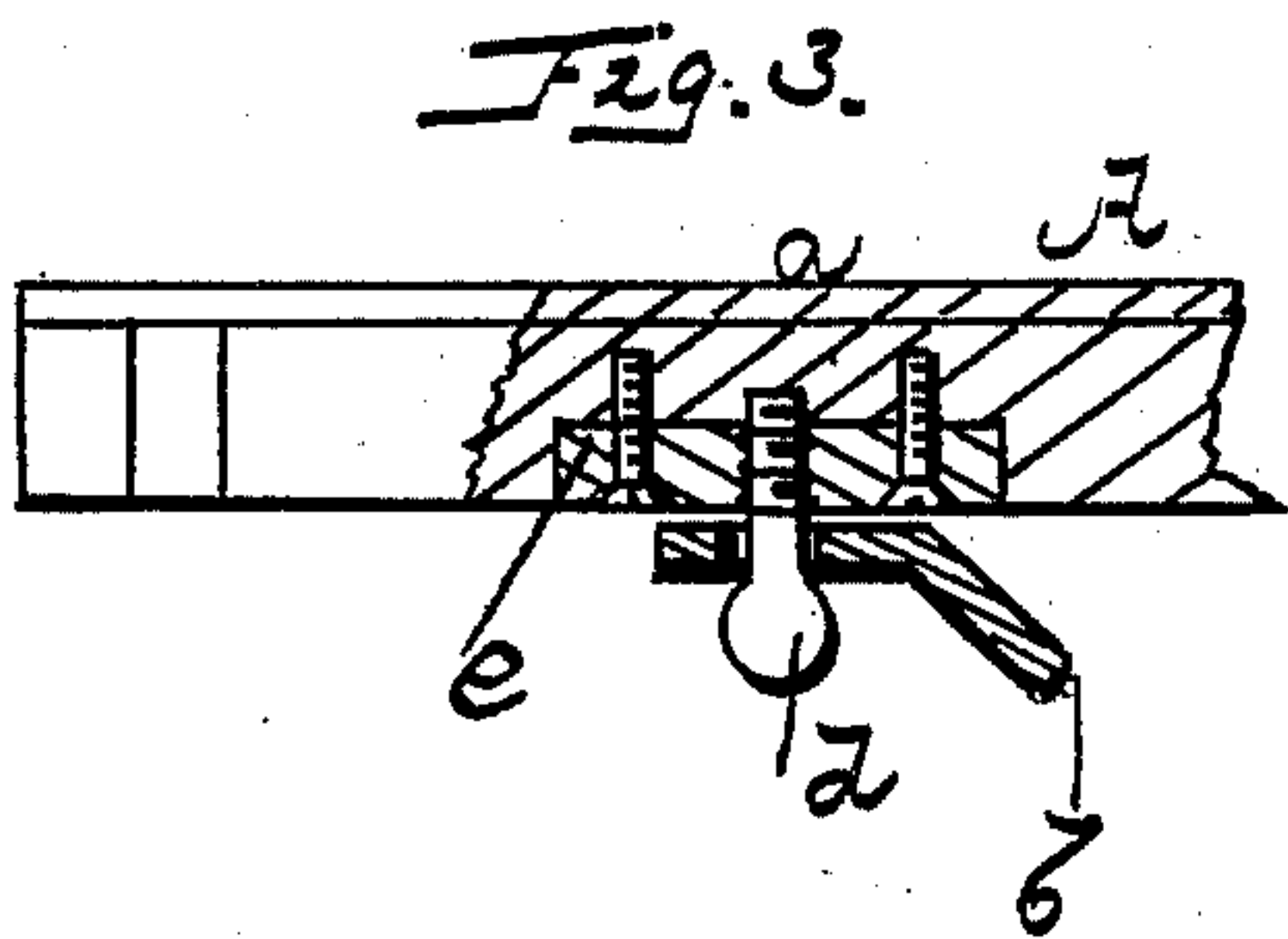
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# UNITED STATES PATENT OFFICE.

JOHN RADLEY, OF JERSEY CITY, NEW JERSEY.

## SLEIGH-RUNNER.

SPECIFICATION forming part of Letters Patent No. 448,754, dated March 24, 1891.

Application filed January 6, 1891. Serial No. 376,849. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN RADLEY, a citizen of Great Britain, residing at Jersey City, in the county of Hudson and State of New Jersey, have invented certain new and useful Improvements in Sleigh-Runners; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention has relation to improvements in sleigh runners of the class designed to be removably secured to the wheels or running-gear of a vehicle, (wheeled;) and it consists in the construction and novel arrangement and combination of parts, all as will be hereinafter fully described.

The annexed drawings, to which reference is made, fully illustrate my invention, in which—

Figure 1 represents a vertical longitudinal sectional view of my device. Fig. 2 is a plan view of the same. Fig. 3 is a detail sectional view of a portion of one of the runners. Fig. 4 is a detail view of a portion of the transverse rod *c*; and Fig. 5 is a side view of the device, showing a modification.

Referring by letter to the accompanying drawings, A designates the sleigh-runners, which are constructed with the curved front end in the usual manner and having a tire, and at the outside thereof is provided a metal shield or plate *a*, which extends from front to rear thereof, and also extends somewhat above the upper surface of the runner, as shown in the annexed drawings.

To the inner face of each of the runners is removably secured uprights or supports *b b*, which are connected together at their upper ends by a cross bar or rod *c*, the same being pivoted to the ends thereof. These supports form legs, and the same are perforated at

their lower ends, through which passes a set-screw *d*, which latter engages a female-threaded block *e*, set within the runner and being flush with the innerface thereof. This cross-bar *c* is provided with a pair of loops *f*, each of which is arranged near each end of said bar, and said loops are provided with straps *g*, having buckles, whereby the bar can be firmly secured to the axle or a wheeled vehicle.

To the inner face of each runner is secured one end of a chain *h*, while the free end thereof is designed to be attached to the axle or other convenient part of the vehicle.

It will thus be seen that I provide a detachable runner for wheeled vehicles, which can be readily applied or detached from a vehicle in a very short time, and in case it is desirable to store the runners when not in use and to take up very little room, the thumb-screw on each runner can be withdrawn, and by the legs turning on the pivotal ends thereof said legs and bar, with its strap, can be laid flat, and it is simple in operation, easily and quickly applied to a vehicle, as well as being removed therefrom, and it is also durable and at the same time cheap to manufacture.

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

In a device of the character described, the combination, with the runners, the legs or supports secured to the runners by the thumb-screws, the side plates, the cross-bar having the loop and pivotally connected to said legs, the strap engaging said loop, and the stay-chains, all substantially as and for the purpose set forth.

In testimony whereof I affix my signature in presence of two witnesses.

JOHN RADLEY.

Witnesses:

CHAS. M. RAMSAY,  
ALBERT SPIES.