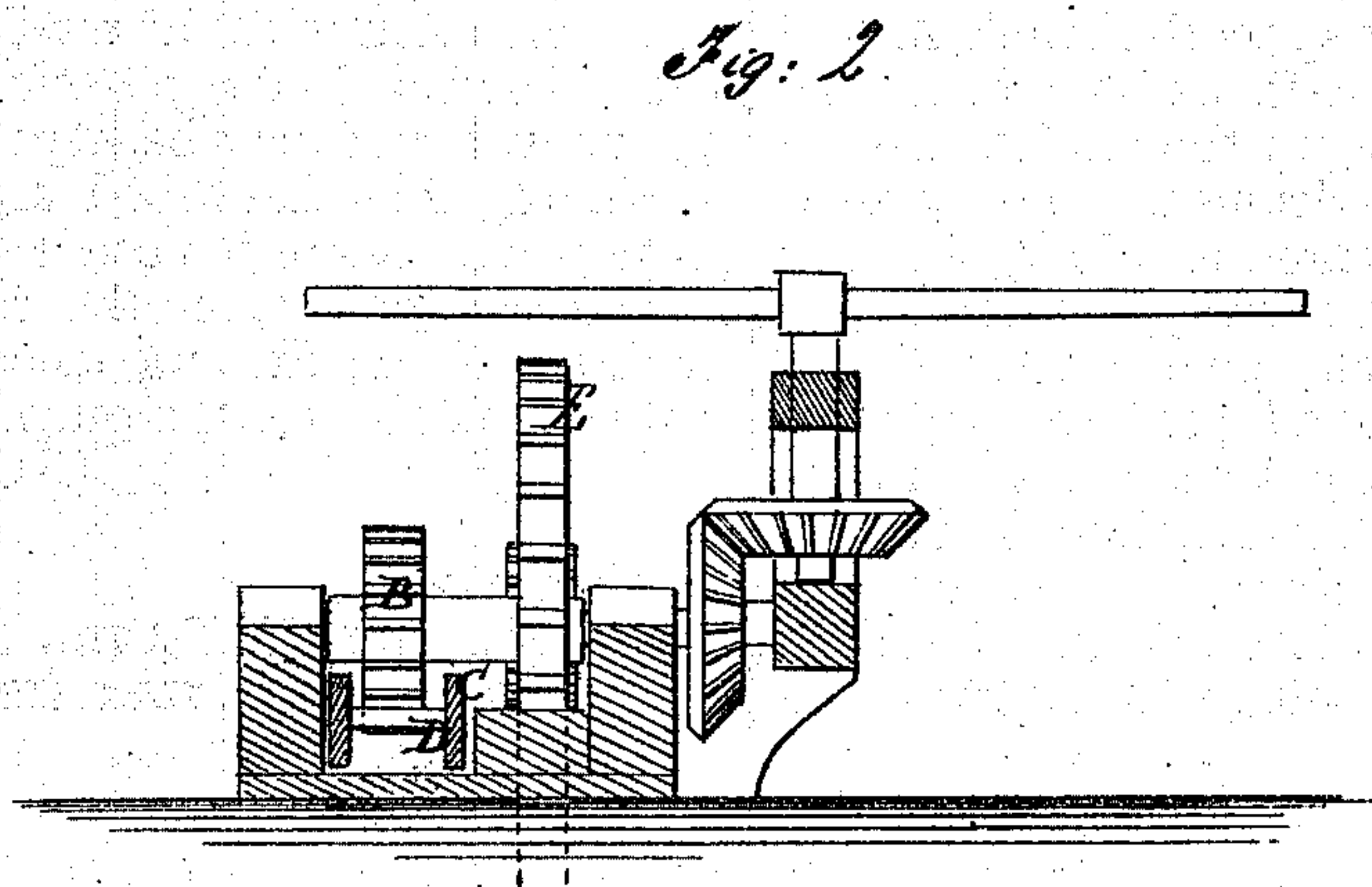
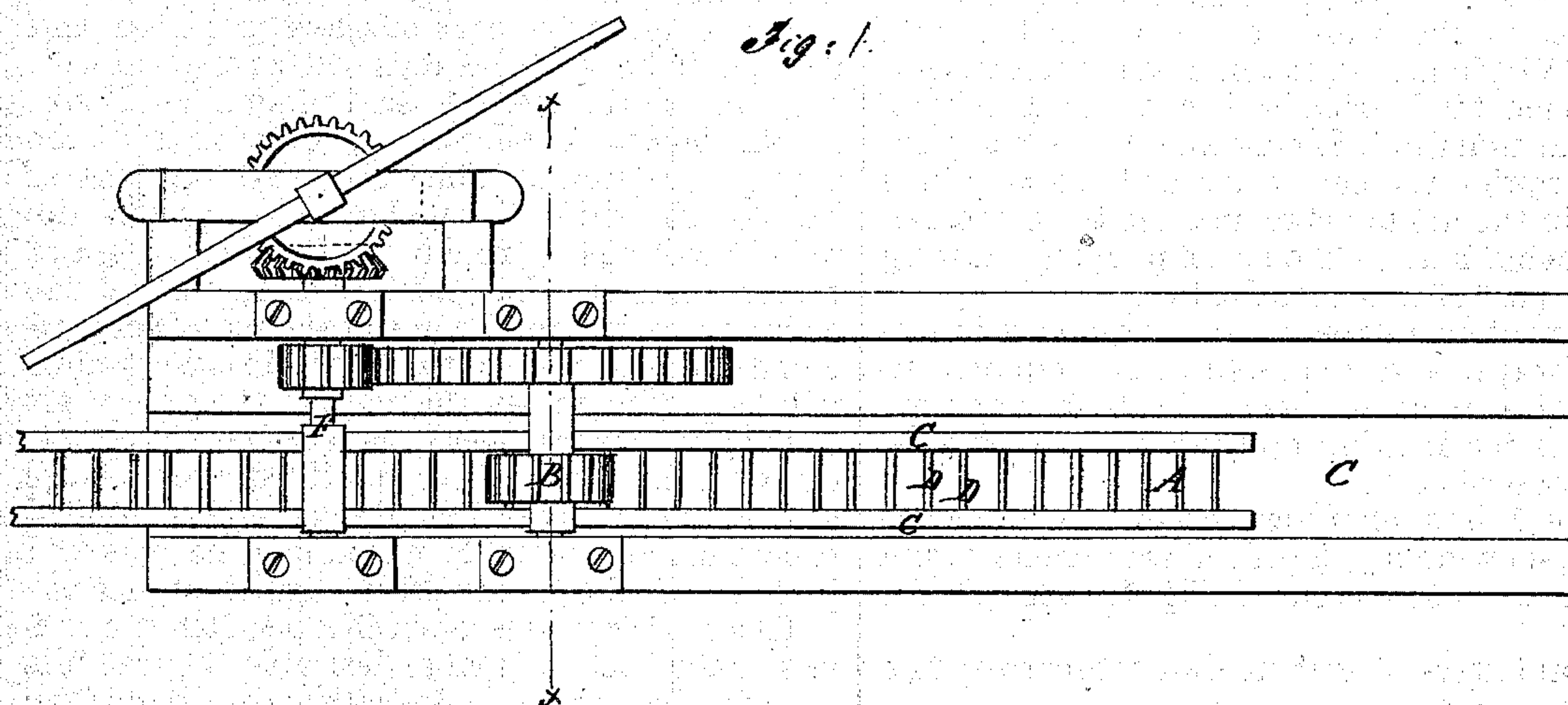


J. H. GOSLINE.

Improvement in Marine Railways.

No. 119,345.

Patented Sep. 26, 1871.



Witnesses:

Chas. Nida.
Hustave Duetenich

Inventor:

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UNITED STATES PATENT OFFICE.

JOHN H. GOSLINE, OF HAMPTON, VIRGINIA.

IMPROVEMENT IN MARINE RAILWAYS.

Specification forming part of Letters Patent No. 119,345, dated September 26, 1871.

To all whom it may concern:

Be it known that I, JOHN H. GOSLINE, of Hampton, in the county of Elizabeth City and State of Virginia, have invented a new and useful Improvement in Marine Railways; 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.

My invention relates to improvements in marine railways; and it consists in the employment of a toothed rack and gear-wheels for applying the power for drawing up the cradle, all as hereinafter described.

Figure 1 is a plan view of part of a marine railway, showing my improved arrangement, and Fig. 2 is a cross-section of Fig. 1, taken on the line *x x*.

Similar letters of reference indicate corresponding parts.

I propose to employ a long toothed rack, A, and a pinion, B, gearing with it, as shown, for applying the power to draw up the cradle, instead of the endless chains and drums commonly used, the said rack being arranged in a long channel, C, in the upper part of the railway, and connected at the lower end with a long pole or iron rod connected to the cradle, and adapted to be readily detached, when the rack has been drawn up its length, to let it be run back again and be connected directly with the cradle. This rack will be composed of two side pieces, C, and the cross-bars or rods D, the former being of wood, strength-

ened by iron bars, and the latter wholly of iron. The space between the two bars C will be sufficient to admit the cogs of a strong pinion, and the spaces between the rods will correspond with the pitch of the teeth of said pinion, which will be six inches or thereabout, according to the strength required. The strengthening bars of iron for the sides C will be placed so that the rods D will pass through them to be riveted at the end, and said bars will lap each other at the ends and be secured by one of the rods D in preference to being welded together. Friction-rollers will be placed under the rack in the groove for causing it to work as easy as possible. The shaft carrying the pinion B is provided with a large gear-wheel, E, by which the power is applied from a driving-shaft, F, which may be operated by hand-cranks or any other competent means.

This contrivance is much cheaper than the endless chains, and it is more desirable because it is entirely above water and wholly exposed to view; the connection with the cradle being by means of the rod or pole before mentioned, and being thus above water, it may be kept in order better.

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

The arrangement of the rack and pinion, the cradle, and the driving mechanism of a marine railway, as and for the purpose specified.

JNO. H. GOSLINE.

Witnesses:

WILLIAM H. DAVIS,
THADDEUS WILLIAMS.

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