

W. H. NEWELL.

Improvement in Canal Boats.

No. 123,039.

Fig. 1.

Patented Jan. 23, 1872.

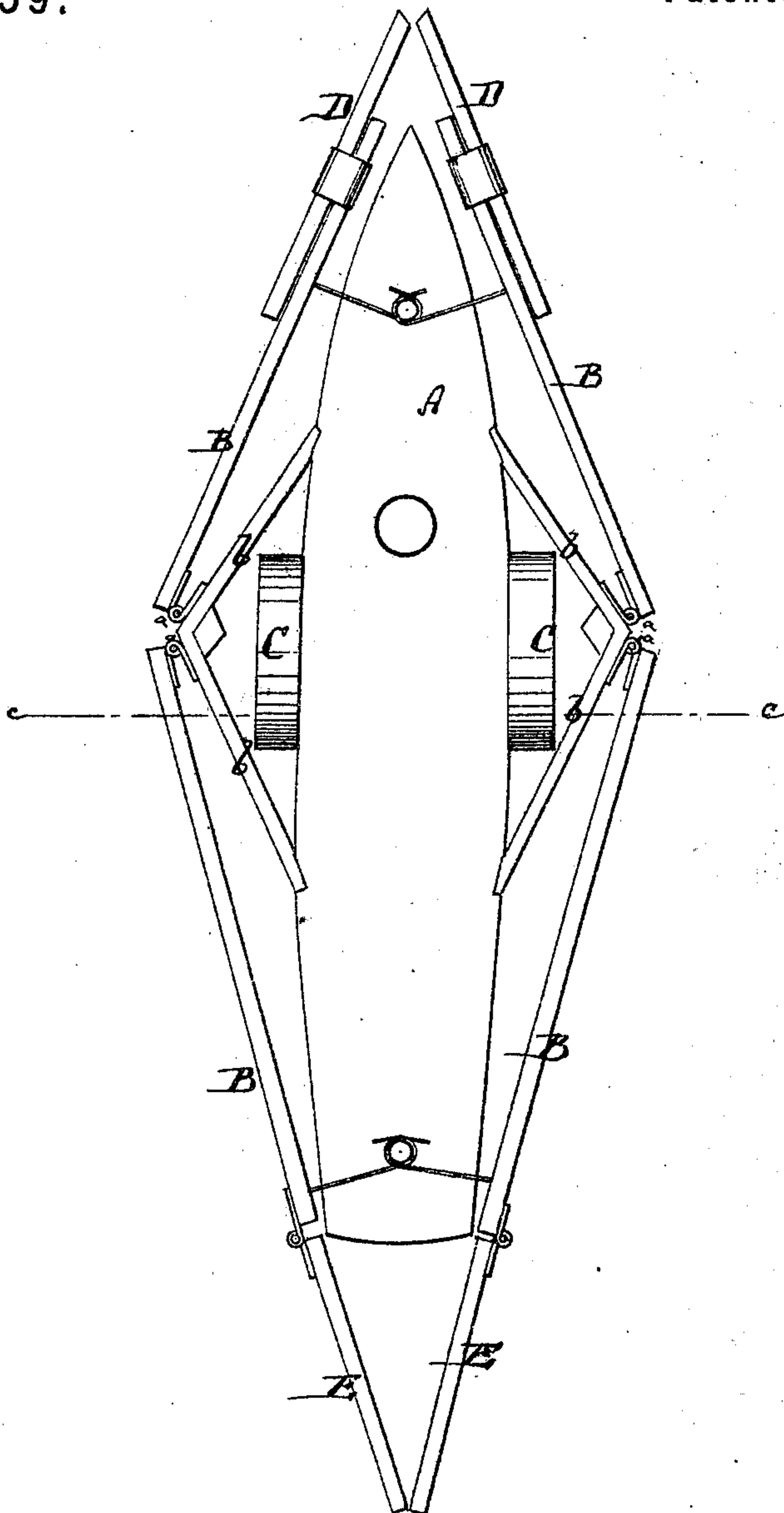
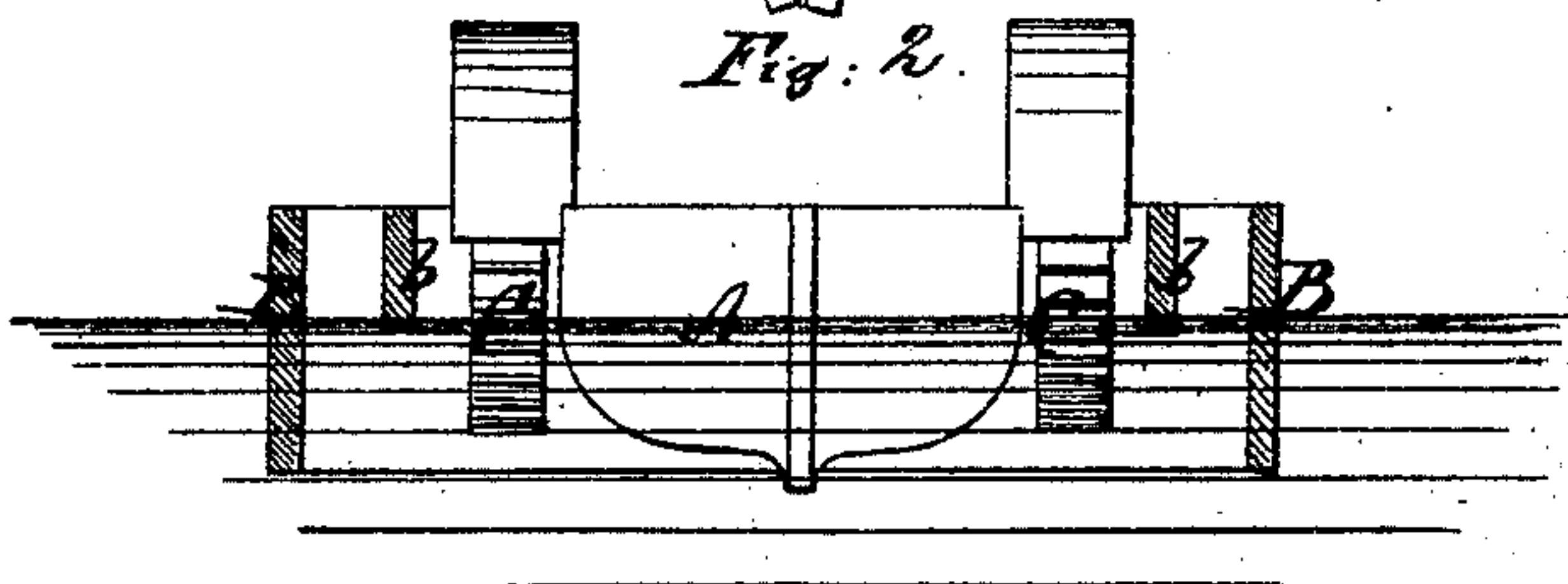


Fig. 2.



Witnesses:

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UNITED STATES PATENT OFFICE.

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IMPROVEMENT IN CANAL-BOATS.

Specification forming part of Letters Patent No. 123,039, dated January 23, 1872.

Specification describing a new and Improved "Canal-Boat," invented by WILLIAM HENRY NEWELL, of Jersey City Heights, in the county of Hudson, and State of New Jersey.

Figure 1 represents a plan or top view of my improved canal-boat. Fig. 2 is a vertical section of the same on the line *c c*, Fig. 1.

Similar letters of reference indicate corresponding parts.

This invention relates to a new fender attachment for canal-boats, whereby the lateral disturbance of the water is prevented, and undue friction during the propulsion of the boat avoided. It consists in hinging fenders to the sides or at the ends of the boat, so that they will protect the propeller or wheel, and tend to prevent the disturbed water from reaching the banks. It also consists in the application to side fenders of extension pieces, as hereinafter more fully described.

A in the drawing, represents a canal-boat or vessel of suitable size and shape. To its sides, or to frame *b*, projecting therefrom, are hinged at *a a* the inner ends of double fenders B B, which extend forward and backward of the propelling-wheels C, as shown, and are immersed to a sufficient depth to prevent the water disturbed by the propeller or wheels C, from reaching the banks of the canal in a disturbed state. The fenders may, on their hinges, be swung out or in more or less, according to the amount of water acted on by the propeller

and depth of draft. To one or both the ends of the fender, are or may be applied extension-fenders D D, which permit the proper lengthening or shortening of the main pieces. Instead of extension sections D, there may be hinged sections E at the ends of the fender, which may be folded against the main fenders, when to be carried out of the way. These hinged end pieces may also be used as rudders if desired. Canal-boats having stern propellers may have fenders hinged only to their stems and bows, or either, and none at the sides. Where the fenders are caused to meet forward of the boat, they will increase the speed by cutting through the water with less friction.

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

1. The hinged fenders B B applied to boat A, and on the outside of wheels C C, as and for the purpose described.

2. The adjustable extensions D D applied to the fenders of boats, as and for the purpose set forth.

3. The hinged end sections E E applied to the fenders, as and for the purposes set forth.

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Witnesses:

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