

E. MATHERS.

Improvement in Paddle-Wheels.

No. 114,022.

Fig. 1.

Patented April 25, 1871.

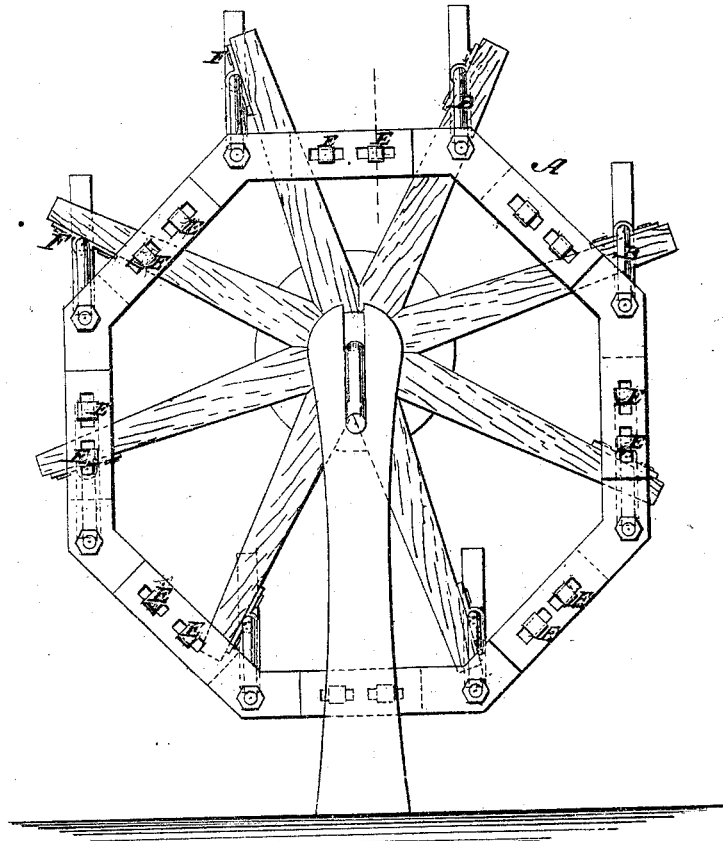
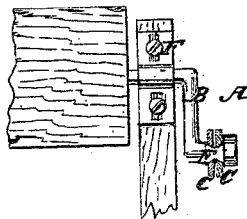


Fig. 2.



Witnesses:

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EBENEZER MATHERS, OF HARRISVILLE, WEST VIRGINIA.

Letters Patent No. 114,022, dated April 25, 1871.

IMPROVEMENT IN PADDLE-WHEELS.

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, EBENEZER MATHERS, of Harrisville, in the county of Ritchie and State of West Virginia, have invented a new and useful Improvement in Paddle-Wheels; 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 improvements in feathering paddle-wheels, in which the pivoted buckets are connected by cranks to rings which hang therefrom, so as to maintain the buckets vertically edgewise; and

It consists in the arrangement of these rings in sections, connected together so as to expand or contract them, and in mounting the bearings for the paddle-journals so that they can be adjusted toward or from the center.

The object is to vary the dip of the buckets as demanded by the varying draughts of the boat, whether light or loaded.

Figure 1 is an end elevation of a wheel constructed according to my improvements, and

Figure 2 is a detail view showing the adjustable mountings of the paddles.

Similar letters of reference indicate corresponding parts.

A represents one of the feathering rims suspended from the paddles by cranks B, in a well-known way to "feather" them.

These rings are made in sections C, which lap each other at the ends, and are so connected that they

may be readily moved back and forth on each other to increase or diminish the size of the rings, according as it may be desired to adjust the buckets toward or from the center of the wheel to vary the dip, or adjust them to the condition of the boat whether loaded or light, said paddles being arranged on the arms of the wheel for such adjustment.

The arrangement of the said sections for adjustment on each other, also the arrangement of the journal-boxes of the paddles for the said adjustments, may be made as circumstances may require, or to suit the fancy of the builder.

In this case the sections of the rims have slots in them in which dovetailed blocks or rivets E are fitted as shown, which may be hammered or riveted down to secure the said sections; and the journal-boxes F are slotted where the bolts pass through to admit of moving them when the bolts are loosened.

Having thus described my invention,

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

1. The rings A, made in sections and fitted together for adjustment, as shown and described, for the purpose of increasing or diminishing the diameter of the circle described within them.

2. The buckets, arranged as specified, for adjustment toward or from the center of the wheel.

EBENEZER MATHERS.

Witnesses:

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