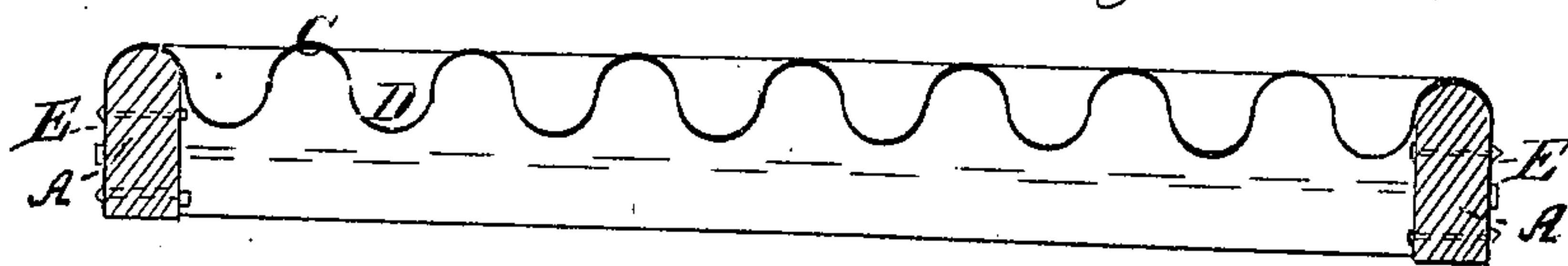


*Hutton & Huston,*  
*Paddle Wheel.*

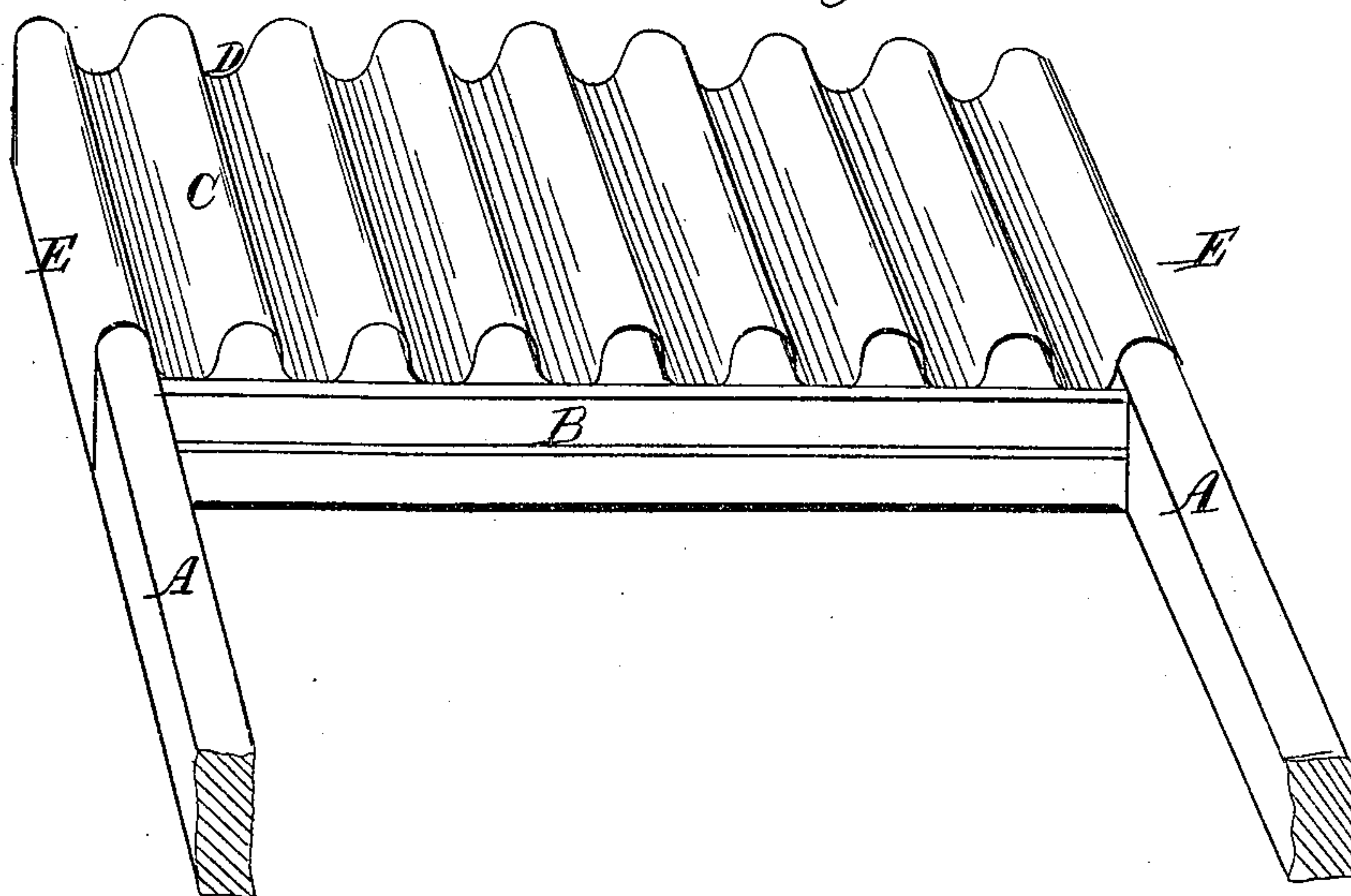
*No. 5623.*

*Patented June 6. 1848.*

*No 1 Fig 1*



*No. 2 Fig 2*



# UNITED STATES PATENT OFFICE.

PELATIAH M. HUTTON, OF TROY, NEW YORK, AND WILLIAM HUSTON, OF  
WILMINGTON, DELAWARE.

## IMPROVEMENT IN PROPELLERS.

Specification forming part of Letters Patent No. 5,623, dated June 6, 1848.

*To all whom it may concern:*

Be it known that we PELATIAH M. HUTTON, of Troy, county of Rensselaer, and State of New York, and WILLIAM HUSTON, of Wilmington, county of New Castle, and State of Delaware, have invented a new and useful improvement on a bucket for the paddle-wheels of steam or any other boats propelled by paddle-wheels in the water; and we do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1 is the edge view of the bucket confined to the arms of the wheel, and Fig. 2 is the side view attached also to the arms of the wheel.

A A show the arms of the wheel, and B the braces.

C is the convex of the fluted bucket, and D the concave, the opposite reversing the explanation by the letters.

At E the buckets are spiked or bolted to the arms of the wheels, or confined by any other mode most proper and convenient.

To enable others skilled in the art to make and use our invention, we will proceed to describe its construction and operation.

We make our bucket of any strong and durable metal and of such length and width as the size of the wheel may require. We bend the sheet of metal so as to make it into flutes from one end to the other, the flutes standing perpendicular when the bucket is fastened to

the wheel, the flutes varying in width and depth, according to the size of the vessel on which it is to be used, but will vary from one inch to eighteen inches in depth and width generally, and in thickness of metal from one-sixteenth of an inch to one inch, owing to the quality of the metal and the size of the vessel; and by referring to the letters in the drawings C and D the flutes or concaves and convexes will distinctly be observed. The bucket we place horizontally across the ends of the arms like ordinary buckets are placed on paddle-wheels. Strengthened and supported by arms sufficient and the requisite number of braces, our bucket will play with great elasticity, avoiding that injurious jarring and trembling which all other ordinary buckets produce, besides our bucket will do much more execution with the same driving-power by lifting much less water and displacing less water when it is submerged, and various other advantages will be derived from our improved bucket; and

What we claim as our invention, and desire to secure by Letters Patent, is—

The application of our peculiar-formed bucket to any and all ordinary paddle or driving wheels of steam or other boats propelled by wheels with buckets in the water, operating fully as an elastic or spring bucket.

PELATIAH M. HUTTON.  
WILLIAM HUSTON.

Witnesses:

GEO. W. ROBERTS,  
L. F. BODDY.