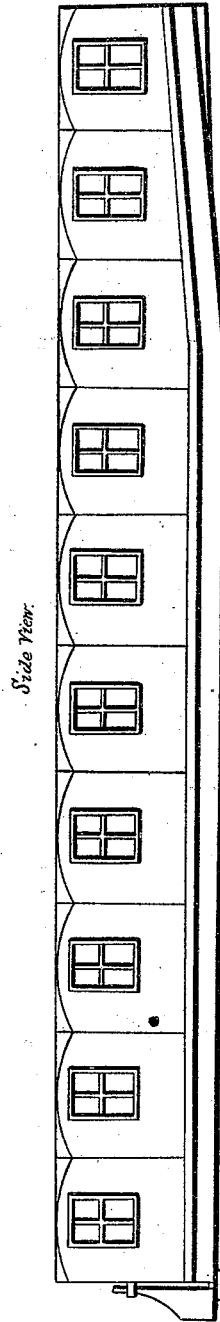
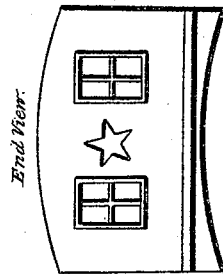


A. Morrison.
Shin Form.

Nº 198.

Patented May 15, 1837.



UNITED STATES PATENT OFFICE.

ABRAHAM MORRISON, OF JOHNSTOWN, PENNSYLVANIA.

MODE OF CONSTRUCTING BOATS FOR CANALS, BAYS, LAKES, AND NAVIGABLE RIVERS.

Specification of Letters Patent No. 198, dated May 15, 1837.

To all whom it may concern:

Be it known that I, ABRAHAM MORRISON, of Johnstown, in the county of Cambria and State of Pennsylvania, have invented a new and Improved Mode of Constructing Boats for Canals, Bays, Lakes, and Navigable Rivers; and I do hereby declare that the following is a full and exact description of the same.

In giving my description, I shall assume certain admeasurements, and proportion of parts, and although I shall, in so doing, give such as I believe to be well calculated to answer the purpose intended, I do not intend to limit myself in these particulars, as much latitude may be allowed in these respects, while the principle upon which my improvement is dependent is still retained.

The form of the bottom of my boat is the reverse of that usually adopted, as, instead of being convex in the cross section, I make it concave in the said cross sections from stem to stern. In building a boat of sixty feet in length, I take plank twelve feet long, thirteen inches broad, and one and a half inches thick, and these I cut to a curve of nine inches in their whole length, so that in the middle they will be only four inches wide. Of these there may be twenty one pieces, which are to constitute the cross plank upon which the bottom and floor of my boat are to be fastened; the average distance apart of these cross pieces, when placed on edge, will be three feet. In building my boat, I first place these on edge, with the hollow side upward having first the side standards, rabbeted into and riveted fast to the ends of the cross plank, to which the side planks are to be spiked and so as to range properly, and then spike on the bottom; sheeting of inch and a quarter plank. In arranging the cross plank and side standards they are placed on a line of three fourths of the length of the boat, and thence, toward the bow, they are to have such an in-

clination as will elevate it about twelve inches. The side plank is put on upon the ends of the cross plank, and spiked or nailed or screwed to the side standards so as to be about two inches below their lower corners, and they will, consequently, project about an inch below the bottom sheeting; they are also to rise two inches above the floor, which will require plank of eighteen inches in width. The cross plank being thus secured together, while this part of the boat is bottom upward, it is then turned over, and the superstructure completed. A floor of strong inch plank is to be laid upon the cross pieces, and the side standards are to be raised, which may extend to the height of six feet above the floor, in a vertical line. The sides, top, stern, and bows may be finished in any way which may be preferred.

To give additional strength to this boat, I take two iron rods, each thirty feet in length, and three fourths of an inch in diameter, and extend them from side to side of the boat, so as to cross each other at, or near, the center, securing their ends firmly to the side plank, just below the floor. I also bolt the two sides together by means of six bars of iron of the same size, crossing the boat about two inches below the floor.

Having thus fully described the manner in which I construct my canal boats, I hereby declare that I rest my claim to invention solely upon—

The form which I give to the bottom of the boat, which is concave from stem to stern, and straight, with the exception of the elevation toward the bows, as hereinbefore fully set forth.

The interlineations are all inserted by myself before signing.

ABM. MORRISON.

Witnesses:

SAML. KENNEDY,
W. BARNETT.