

1-18 of an inch in thickness. The engines will equal twelve horses power, and will propel her, on the Forth and Clyde canal, at a rate (according to our experiments with the swift twin boat) of 10 to 11 miles per hour. The Union canal, which is narrower and of less depth than the Forth and Clyde, will not admit of the same rate of progression, but will probably reduce the speed to 9 or 10 miles per hour, consequently the rate of speed on the two lines of navigation—that is the Forth and Clyde and Union Canals, on which the Lancashire Witch is intended to ply—will be a near average of 10 miles per hour exclusive of stoppages.

“In the present stage of our proceedings, it is impossible for me to furnish accurate data as to the exact form or build requisite for quick speed on canals; particularly when steam is employed as a propelling power; it is nevertheless a matter of much importance, and a great desideratum in iron boat building, that a judicious and proper arrangement of the metals should be strictly attended to; that lightness combined with strength, and the proper lines should never be lost sight of in the build of vessels of this description. In my report on the subject of the late experiments on the Forth and Clyde canal, I purpose to take an enlarged view of this subject, which I trust will not only introduce the use of iron generally in the construction of canal boats; but, at the same time, elicit such practical information as will be of some benefit to the public.”