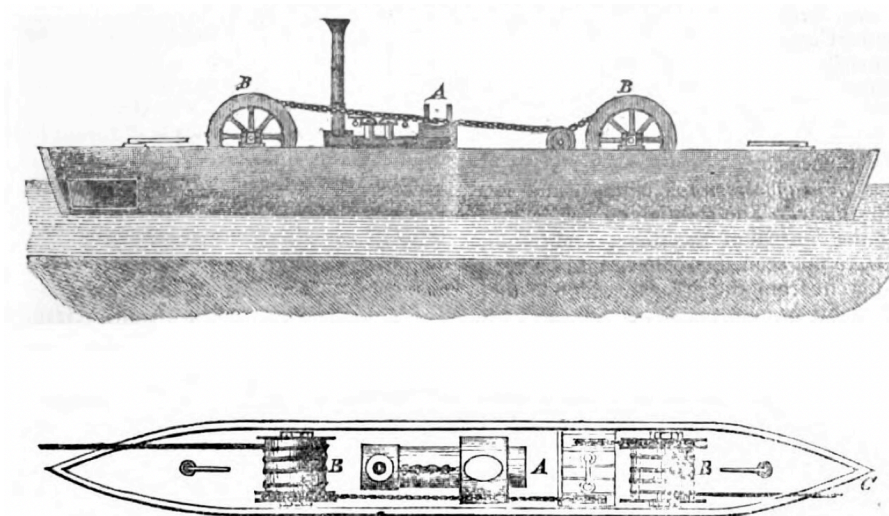


*Mechanics Magazine* Dec 11, 1847

NOTES AND NOTICES.

**New Steam-boat for Canals**—A newly constructed steam apparatus, by Christie and Co., of London, is now working upon the Duke of Bridgewater's Canal, between Runcorn and Preston Brook. It consists, first of all, of a simple barge, which carries the engine, but of course has no paddles. It propels itself, with whatever burden is attached to it, by means of a rope, one end of which is made fast at Runcorn, and the other at Preston Brook; there are two barrels fixed in the engine boat, which are made to revolve round their centre pieces by the power of the engine, and, as they go round, they wind up one end of the rope and let out the other, so that, when the barge is at either of the above mentioned places, one barrel is bare and the other filled with the coil. The rope that is loosed falls, by its own gravity, to the bottom of the canal, so that there is no obstruction offered to other vessels. Thus, when the boat has arrived at Preston Brook, the Runcorn barrel is uncoiled, and vice versa on its arrival at Runcorn, On Tuesday last, six loaded barges were attached to it, four of 40 tons burden, and two smaller boats, making altogether 250 tons burden, independent of the steam boat, which it took to Preston Brook, about five and a half miles, in two hours. It seems fully to answer the expectations of the trustees, and it will enable them to clear the docks of the different carriage-barges at a wonderful rate of dispatch. — *Liverpool Mercury*. [The invention referred to is that of Capt. Beadon, of which a full account was given in our vol. xlv., p. 205. (Below)]

### Captain Beadon's Canal Warping System



We mentioned in our last some successful experiments which have been made on the Regent's Canal with this new system of canal navigation, and now pre sent our readers with an elevation and plan of a boat similar to that with which the experiments referred to have been made, only a little modified in the details. The affair is so simple as hardly to require any explanation. A represents the engine; BB the reels; and C C the fore and aft haulage ropes; one in the act of being wound upon its reel, and thereby dragging the boat forward, and the other in the act of being unwound, and thereby keeping the boat steady in the line of motion. It is proposed to employ as great lengths of rope as can be conveniently wound upon the reels, and according to these lengths will, of course, be the distance gone over with each set of ropes. As intimated in our last, the ropes may be either attached at their far ends to posts on the canal or river banks, or they may be laid down loosely in the bed of the canal or river the weight and friction against the ground, of a rope a mile or so in

length, being such as to afford quite resistance enough to the pull of the engines. The latter arrangement, however, is of necessity one which can only be conveniently adopted where there is but one length of haulage to be performed, and that of no greater length than the reels are equal to ; as, for example, between lock and lock, or from one end of a tunnel to another.

Where this system of warping has to be kept up continuously for a great many miles, the inventor proposes to have a series of posts fixed at regular distances along the banks, with a warp attached to each; that these warps shall be taken up successively and wound upon the reels; and that as each warp is drawn in, the reel on which it has been wound shall be thrown out of gear with the engine, and the warp left free to run out towards the rear, while the other and now empty reel is brought into action to pull in the next warp of the series.

The economy of this system of haulage, as compared with that of horses, can hardly be doubted. It resolves itself, in fact, into one of the simplest and cheapest of all known modes of applying power; viz., that of drawing, by direct leverage, a weight over a pulley.

The Grand Junction Canal Directors have offered the inventor every facility for testing the efficiency of the system on a large scale; and Captain Beadon intends, we believe, very shortly to avail himself so far of their liberal encouragement, as to establish a line of haulage on his plan from Paddington as far as Drayton, a distance of from 12 to 13 miles.