

[OFFICIAL.]

INDEX OF INVENTIONS

FOR WHICH

Letters Patent of the United States were

Granted in the Week ending

May 4, 1875,

AND EACH BEARING THAT DATE.

[Those marked (r) are reissued patents.]

Table listing inventions such as Addressing machine, Air, etc., Announcer, Auger, etc., with corresponding patent numbers.

Table listing inventions such as Kiln, brick, Knitting machine, Ladder, firemen's extension, Lamp, carriage, etc., with corresponding patent numbers.

Table listing inventions: Wire way, endless, A. S. Halldale; Wringer, T. E. McDonald.

DESIGNS PATENTED.

Table listing designs: VALISE LOCKS, FANS, STAIR COVERS, etc., with patent numbers.

TRADE MARKS REGISTERED.

Table listing trade marks: WHISKY, SOAP, ESSENCE OF GINGER, etc., with patent numbers.

SCHEDULE OF PATENT FEES.

Table listing patent fees: On each caveat, On each Trade mark, On filing each application, etc.

CANADIAN PATENTS.

Table listing Canadian patents granted in Canada, April 22 to 29, 1875.

Advertisements.

Back Page - - - - - \$1.00 a line. Inside Page - - - - - 75 cents a line.

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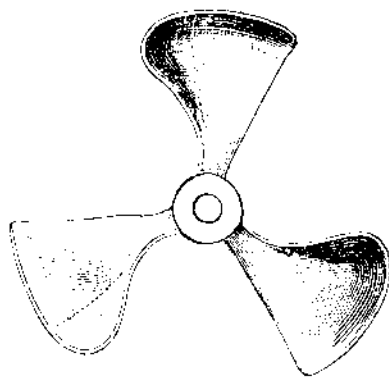
A. J. WILKINSON & CO., Boston, Mass.

WANTED—A responsible party to manufacture the Novelty Twine Holder, patented April 6, 1875.

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It not only avoids tangential motion, but, to its front blade cut, adds a draft from the periphery belt, and discharges the column directly aft with great force.

Office of RICHARD H. BUEL, Consulting Mechanical Engineer, No. 30 Broadway, New York, May 18, 1875.

N. A. PATTERSON, Esq., President Patterson Propeller Co., &c. Sir: I present, herewith, the results of my calculations in regard to the comparative performance of the Common Screw Propeller, and the "Eagle Wing" Propeller.

The data referred to are as follows: The steam yacht of the New York Herald was originally fitted with a propeller of constant pitch. This was removed, and the "Eagle Wing" Propeller substituted.

Before changing the propellers, a run was made from the Battery to Robin's Reef Light House—about 1 mile—and after the change, several runs were made over the same distance. For the purpose of obtaining uniform conditions, the run was made, in each case, 5 hours after high water; and, the valve motion of the Engines was adjusted, to admit steam for the same fraction of the stroke—3/4 in each case.

It is required to determine the relative horse-power developed by the engines in the cases cited above. In order to calculate the relative horse-power exerted, from the above data, it is assumed in the 1st and 2nd cases that the mean effective pressure in the cylinder was the same, so that the horse-power varied as the number of revolutions per minute.

The results of the calculations will be found below: I. For the same speed of vessel, the "Eagle Wing" Propeller only required from 75 to 80 per cent as much power as the "True Screw."

When the same power was used, the "Eagle Wing" Propeller drove the vessel 22 1/2 per cent faster than it was propelled by the "True Screw."

These results are so interesting and important that it seems desirable to confirm them by a series of tests in which all the data necessary for a complete calculation shall be determined by careful experiments.

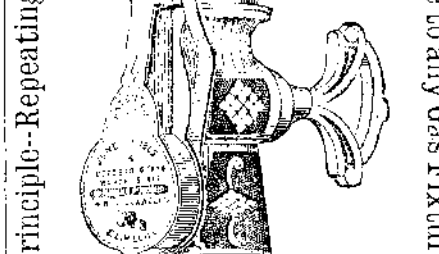
Respectfully, RICHARD H. BUEL.

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