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NEW SERIES.

POWER-ACCUMULATING WINDMILL.

We invite the attention, not only of the users of windmills, but of all those also who are interested in novel mechanical contrivances, to the invention here illustrated. As the idea might be applicable in many varieties of mechanism, and therefore lies in the path of numerous inventors, we could at first hardly believe that so simple and neat a device had been overlooked until the present time. But as the claim exactly covering the plan has been passed upon by the Patent Office, and as the idea has not been met with by our own experienced corps of examiners, we presume it is really new, and it is no doubt of sufficient importance to hereafter take its place in tables of mechanical motions.

The plan is to attach the machinery to a spindle which is turned by a cord wound around it, a weight being suspended at the end of the cord, and at the same time to wind up the weight by a fly revolving loosely around the spindle, the fly being connected with a windmill.

The windmill, A, in the annexed engraving, is connected with the vane, B, and the revolving cap, C, in the usual manner, so as to be kept facing the wind. As the shaft, d, revolves, it imparts, by means of the crank upon it, a reciprocating motion to the rod, e, which is attached to an arm on the end of the rocking shaft, f. The rod, g, also attached to the rocking shaft, f, has the forked pair of pawls, h, upon its lower end, which actuate a ratchet wheel upon the sleeve, i. This sleeve is connected with the fly, j, which is thus caused to revolve by the revolutions of the fan. Two cords or bands, k k, pass through the fly, and are wound in opposite directions around the spindle, l, so that the rotations of the fly raise the weight, M, by winding up the cords, k k. The spindle, l, passes loosely through the sleeve, i, and is connected by the gears at its top with the shaft, n, which turns the machinery. A regulator, connected with a friction brake, is also introduced in the usual manner. The office of the ropes, O O, is simply to guide the weight in its ascent.

When the weight has been raised to as great a height as permissible, the crossbar, P, comes in contact with the forked lever, q, which is connected with the rods, r r, these rods supporting at their upper end the ring, s. The

bent lever, t, rests upon this ring, and is connected with the bend in the rod, u, and this rod operates the collar, v, upon the shaft, d, which is connected by rods with the fans of the mill, and regulates its velocity by turning these fans at a greater or less angle to the wind, in the usual manner, the object being to bring this regulating

NEW STEAMBOAT LAW.

A bill is now before Congress for amending the present steamboat law, so as to secure better protection of life to passengers in all classes of steam vessels. Sea-going steamers, tug and ferry boats are exempted from the present inspection system, and the object of the new bill

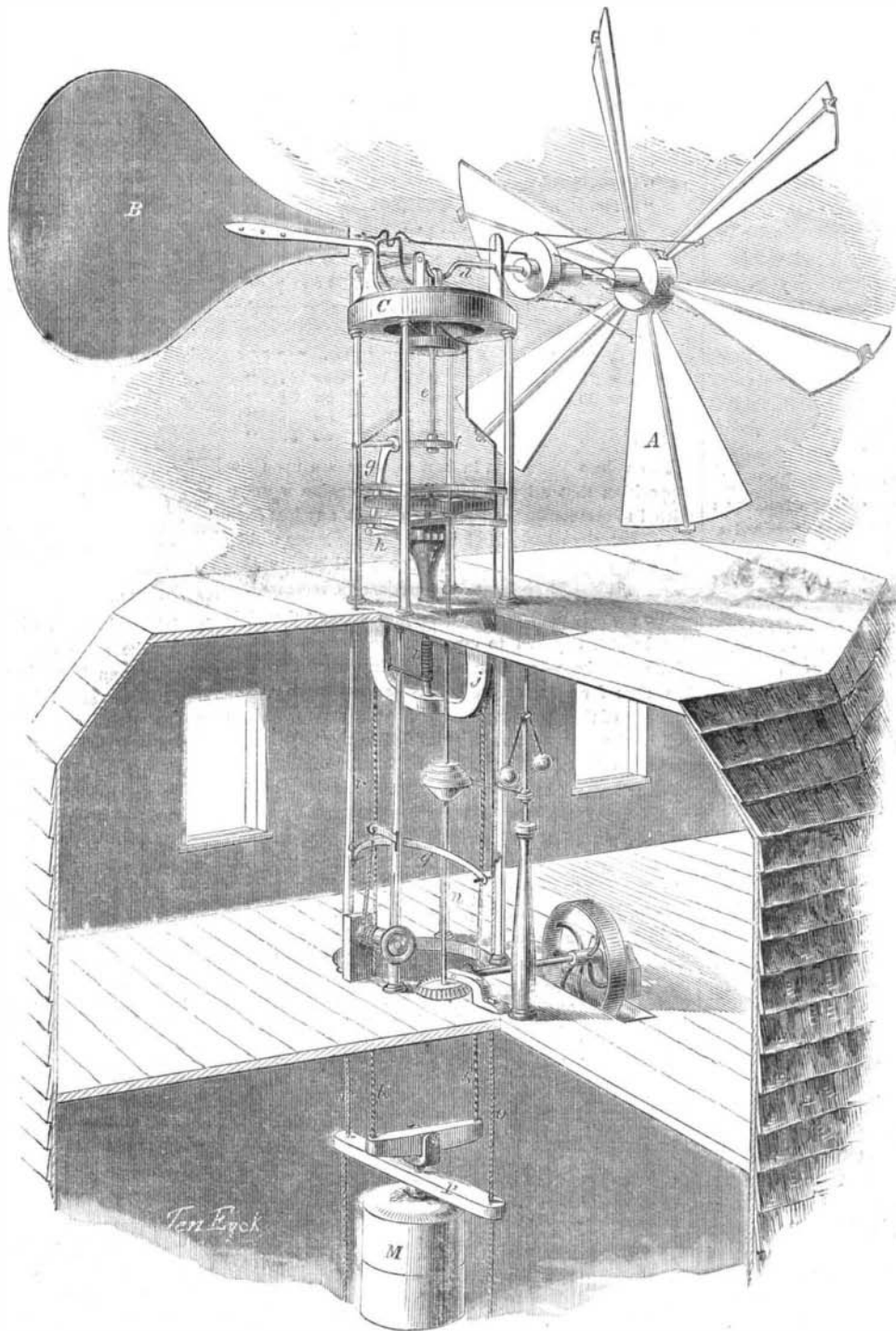
is to include all steam-propelled vessels under the same system as that which now governs river passenger boats. We have always contended that steam vessels of every class should have been included in the present law, and they were so embraced in the first draft of the bill, but we are informed that a great proprietor of ferry boats and steam ships, in this city, had sufficient influence to have his own vessels exempted, by striking out all that related to ferry boats and steam ships.

The new bill provides for several necessary reforms, especially the prevention of such over-crowding of the California steamers as is wont to take place weekly. It also increases the number of Boards of Inspectors.

When this bill was before the House of Representatives on the 27th ult., Mr. Gartrell, of Georgia, said its passage was demanded by the interests of the great masses of the people, and opposed only by monopolizing shipowners. Hon. H. F. Clark, of New York, opposed the bill. Its further consideration was postponed for two weeks. We are afraid that this laudable and necessary amendment to the present steamboat law will meet with the same fate which met its predecessor last year—killed by postponements.

LAW OF BRIDGES.—Judge Lowe, of the United States Circuit Court of Iowa, has rendered a decision that the bridge at Rock Island on the Mississippi, near Davenport, is a nuisance, and that the company which owns it must remove the main pier by the 1st of July next, and the lower pier by the 1st of October. The plaintiffs

in this case were the St. Louis Chamber of Commerce; the defendants, the company which put up the bridges. The application for an injunction was based upon the complaint that the bridge obstructed the navigation of the river. We understand the case will be taken to the Supreme Court of the United States, on appeal from the decision of the Circuit Court. The case is attracting much attention on account of the principles involved.



LUM'S POWER-ACCUMULATING WINDMILL.

apparatus into operation only after the weight has been drawn up as high as it can be.

The patent for this novel invention, which we have no doubt will be found hereafter in numerous combinations, was issued, through the Scientific American Patent Agency, June 21, 1859, and persons desiring further information in relation to it may address the inventor, James K. Lum, at Braintrem, Pa.