

be conveyed into a reservoir, and by a convenient opening in the reservoir, conducted to the top of an over-shot wheel.

The reservoir must be so constructed as to contain only a certain quantity of water, by means of channels through which the redundant water may flow off.

The great advantages of this arrangement are:

First....The machine need never be idle, provided there be a sufficient quantity of wind to keep it in motion.

Second....A single cargo of water, consisting of twenty or thirty tons, is all that is necessary to supply the machinery, as the whole may be so constructed as that the water which flows over the wheel may be again conducted into the well intended for supplying the reservoir by means of the forcing pump.

Third....The variable velocity of the wind-mill cannot in any manner affect the equability of motion in the part of the machinery which is moved by the water, as *that* is always regulated by what are in themselves perfectly regular, viz. the weight of water in the reservoir (which is supposed to be at all times the same) and the impetus acquired by the water in falling through the passage from the reservoir to the top of the wheel.

In hopes that this hint may be of service, I remain your sincere well-wisher,

MECHANICUS.

Newry, July 13th, 1808.

*Postscript.*....Since writing the above I have been given to understand, that the idea of using the power of the wind *mediately* has been proposed to the public before this. I do not regret being deprived of the pleasure of having conceived, what I thought, an original idea; should the hint be taken up and pursued by an individual in the country, my principal object will be so far obtained.

To the Editor of the *Belfust Magazine*.

SIR,

FRANKLIN, in the energetic language of D'Alembert, "*snatched the thunder from the clouds.*" Perhaps the sentence may be considered as an excellent epitome of the philosophical character of that eminent genius. He

used his knowledge of the arcana of nature, as a means of depriving her of her destructive qualities, and extracting from her such practical rules as might advance human knowledge, or extend the limits of our comforts. This, indeed, is the true province of philosophical research, and I am positive, that he who enjoys the happy quality of making practical inferences from his knowledge, though of a limited kind, is much more serviceable, in a certain degree, to society, than he who is for ever soaring in the *high and rarefied* atmosphere of pure theory. I am much gratified therefore, in finding from your prospectus that you set a proper value on the *useful* part of philosophy; allow me to contribute my mite towards this department of your periodical work.

It has been demonstrated by Sir Isaac Newton, that the solid, which offers the *least resistance* in moving through an elastic medium, must partake somewhat of the shape of the cone, curved slightly in its outline. May not this be applied to the correction of the errors of the pendulum? It is pretty well ascertained that much of its incorrectness arises from the different degrees of elasticity, in the medium through which it moves; if then we substitute the *solid of the least resistance*, in place of the weight usually attached to the rod of the pendulum, it is but reasonable to conclude that much of the irregularity complained of will be done away. If we make the resistance which the pendulum offers to the atmosphere the *least possible*, the irregularities arising from this resistance, and the consequent re-action of the air, must also be the *least possible*.\*

\* The consideration of the irregularity of the pendulum, which proceeded from the different densities of the atmosphere put me on devising some mode of removing this serious defect. Perhaps enclosing the whole apparatus of the clock in an iron cylinder, air-tight, and then exhausting the cylinder of air, might be attended with some advantage in this respect; besides, that a clock protected thus from the atmosphere will never require cleaning, and the oil can never oxidate the metal. But this plan, it must be remarked, could not be adopted in

I shall be happy to find, through the medium of your Magazine, that this hint has been followed up, by some actual experiments on the subject, as I know there are many persons in your town fully qualified, in every respect, for the employment, and I need not say how anxious I shall be for some account of a series of well conducted experiments on a matter of so much importance.

I am sir, your sincere well-wisher, &c.

MECHANICUS.

Newry, Sept. 8th, 1808.

ESSAY ON IRISH BULLS.

(Continued from p. x. of Vol. 1.)

JUSTIN also, in describing the warlike character of the Amazons, has the following passage, conveying a statement not altogether unlike the idea of Fielding, "Neque otio, neque lanificio, sed armis, equis, venationibus exercetur;" in English, "They exercised themselves neither in idleness nor in spinning wool, but in arms, horsemanship and hunting."

The jokes of Hierocles have been a fruitful source of *Hibernian blunders*, (I speak as an Englishman.) It is needless to insert them here, as I believe they are to be found translated in the fourth Edition of Edgeworth's Essay on Irish bulls\*.

house clocks, and perhaps astronomers would find it equally objectionable, as the beat of the pendulum could not be heard in *vacuo*. Perhaps the following might be applied with better effect in every respect; exhausting the cylinder intended to contain the clock-work, filling it with carbonic acid gas, in lieu of atmospheric air, and then making it air-tight, the superior density of the former, will increase the sound of the pendulum, the oxidation of the metal is avoided, as in the case of the *vacuum*, and perhaps, too, the dilatation and contraction of pendulum and work may be in a great measure done away, by means of the medium in which they are contained.

\* Sir John Carr, in his Tour through Ireland, mentions that a certain Agricultural Society in England having heard much in praise of the said Essay on Irish Bulls, instantly commissioned their Secretary to procure twelve copies of the Essay, in order to examine its contents, and to ascertain whether it might not contain some hints towards the improvement of the horned cattle in England!!!

Shakespear says, "Cæsar never *did wrong* but in *just cause*." I cannot find that this species of bull has ever been attributed to an Irishman: perhaps there are some bulls, which like certain rights, are unalienable, and cannot be wrested from those who hold high employments in the manor of Parnassus\*.

Should poor Paddy dare to talk of a *horse-race* between two *asses*, we should see it immediately in Italics in every British news-paper, from the mouth of the Ply to the Tweed. But let the divine Homer introduce his goddess of wisdom exhorting Pandarus† to promise an *hecatomb* (i. e. an offering consisting of an hundred oxen) of white *lambs* to Apollo; could Minerva be, with poetical propriety accused of making a *bull*? Oh, be upon it!!!

A worthy Friar of the Franciscan order, mentions a circumstance in support of the credit of his favourite saint, which must be believed *quia impossibile*. It is that on a time St. Francis was by some hazard thrown ashore on a *desolate island*, and in the short space of half an hour he converted ten thousand of the inhabitants!!! This too remains to be attributed to an Hibernian.

One of Dryden's plays was damned by the severity of the Duke of Buckingham's witticism upon the following line,

"My wound is *great*, it is so very *small*."

To which the Duke wittily subjoined, "Then 'twould be *greater* were it *none at all*."

This I consider one of the happiest instances of the *argumentum ad absurdum* on record. The genius of the Duke enabled him to see Dryden's bull intuitively, and his ability instantly provided him with a very natural deduction, which placed the absurdity in the most palpable light.

Sir John Perrot, in his account of the State of Ireland during the reign of Elizabeth, observes, "that more *Englishmen* were born in *Wexford* than in

\* This Bull from Shakespear is given on the authority of Ben Johnson. It is but justice to add that Rowe affirms, he has never met with the above line in any copy of Shakespear.

† See Iliad, Book iv. Verse 102.