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B E I N G

A REPOSITORY of useful and curious INTELLIGENCE,
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A N D,

A JOURNAL of the PRESENT WAR,

With all other REMARKABLE OCCURRENCES,

Throughout the KNOWN WORLD,

For the Year MDCCXLVII.

—*Dulcique animos novitate tenebo.*

OVID.

NEWCASTLE UPON TYNE:

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As a *Succedaneum* to this, I thought upon a *statical* one; it recurring to my Mind, that the Weight and Moisture of the Air being but two Properties of one and the same Body, a *statical Hygrometer*, (*cæteris paribus*) promised the best Assistance towards a more complete Knowledge of the *Barometer*, which acts upon *statical* Principles; and that these two Machines must have a reciprocal Correspondence with each other. I then remembered, that the great Mr *Boyle* had mention'd something of this Nature; after consulting whom I made the following *Machine*, acting upon his Principles, but formed in a Manner differing from his.

I caused a *Balance* to be made to turn with *half a Grain*, ordering that the *Axis* of the *Balance* should, on one Side, be drawn out to the length of one Inch, and its End to be furnished with a *Male Screw*, to which a light *Index* with a *Female Screw* might be fixed. I had this *Balance* fastned in a *Wainscot Box*, 12 Inches in length, nine in Diameter, and four in Depth at Top, but gradually widening towards the Bottom, with a Back to slide up and down in a Groove. The *Axis*, already mentioned, of an Inch Length, came thro' a *Hole* in the Front of the Box, and then had the *Index* fastned on, which described the *Segment* of a *Circle* upon a *Brass Plate*, silvered, and graduated into 180 Degrees, as if it had consisted of a perfect *Semicircle*, or two *Quadrants*. The Reason why the Graduation did not begin exactly with the diametrical Line was, to prevent the Friction of the *Brachia* of the *Balance*, with the little Drop placed at the Bottom of the *Axis* already mentioned.

My next Concern was to *charge* this *Balance*. The *Beam* turned, as has been said, with *half a Grain*; and every such Turn, after repeated Trials, moved the *Index* somewhat more than one *Degree* of the 180 described upon the *Plate*; so I immediately pitched upon a *four penny Weight* all but *six Grains*, which contained as many half *Grains* as there were *Degrees*. This *Weight* I fixed with a *Thread* to one *Brachium* of the *Balance*, without any *Scale*, the several *Threads* or *Silk Strings* of which, as they would imbibe more Moisture, would make the *Machine* less accurate; and the other *Brachium* I charged with a *Sponge*, suspended likewise by a *Thread*, of such a *Weight*, when reduced to absolute Dryness, as made an *Equilibrium*; and then screwing on the *Index* to the first *Degree* of the 180, and exposing the *Machine*, thus ordered, to the open *Air*, in one Night's Time the *Index* had got to the 70th *Degree*; which, as the *Sponge* had been absolutely dry, must have been the true *State* of the *Air*, as to *Moisture*, at that Time.

I find this *Machine* extremely sensible and accurate; it will alter 10 *Degrees* in a Night, and as many in a Day; and has, I think, the following Advantages: 1. It is more portable than any, except that of the *Will Oat*; and, upon any Accident, more easily and speedily rectified than it, or any other whatever. 2. Being graduated from absolute Dryness, it is best calculated for the Discovery of the true *State* of the *Air* as to *Moisture*. 3. The near Correspondence between the *Degrees* on the graduated *Plate*, and the *Weight* of the *Moisture* necessary to be imbibed or exhaled, to make either *Brachium* of the *Balance* preponderate every such *Degree*, gives it the Preference to any other.

Fig. III. *a a a a* shews the *Machine* as viewed on the

Inside, the Back being taken away. *b b* the *Balance*. *c* a small Piece of Wood, by which the *Balance* is fastned to the Box. *d* the *Sponge*. *e* the *Weight*. *ff* two little Rings, by which the *Hygrometer* is hung up.

Fig. IV. The graduated *Plate* which is to be on the Front of the *Machine*, with its *Index* and *Divisions*.

R. P.

Fig. V. represents a simple, yet useful Apparatus, called the *Weavers Larum*, from its being chiefly or originally used by Persons of that Trade, who have frequent occasion to get up very early to their Work; and was communicated to the Royal Society by Mr *Arderson* of *Norwich*, now one of its Members.

a Represents a Board, which hangs commonly in a Wall, divided and figured according to the Size of the *Candle* made use of.*

b, A little Shelf to place the *Candle* on.

c, A *Thread* or *Packthread*, tied fast at *d*, and hanging over a *Pulley* at *e*, whereto a *Weight* is hung at *f*.

By sliding the *Spring* of the *Candlestick* *g*, up or down, as Occasion requires, the *Flame* of the *Candle* is raised as many Hours above the *Thread* as the Person that adjusts it designs to lie before he is called up. At the designed Hour the *Candle* burns the *Thread* in two, the *Weight* falls, and by its Noise seldom fails to wake the Person.

But if the Man who makes use of this Contrivance happens to be of a more than commonly sleepy Disposition, in such Case another *Thread* is tied to that Part of the *Line* *c* which is next the *Pulley*, and its other End is twisted round the *Thumb* or *Wrist* of the sleepy Person, whereby when the *Candle* burns the *Line*, and the *Weight* falls, he receives such a sudden Pull as can hardly fail to wake him, as the *Drawing* will easily explain.

If the *Line* for a few Inches on each Side the *Candle* be *Wire*, with a short *Thread* only just in the Middle where the *Candle* is placed, there can be no Danger of doing *Mischief* by the *Fire's* running along the *Line*.

DESCRIPTION of the RHINOCEROS, represented at Fig. VI.

THIS Creature was first shewn in *London*, in *June* 1739, at 25. *6d.* for each Spectator, being esteemed a very great Curiosity; there not having been a *Rhinoceros* in *England* since 1685. He was fed with *Rice*, *Hay*, and *Sugar*: Of the first he eat 7 *lb.* to about 3 *lb.* of the *Sugar*. They were mixed together; and he eat this Quantity every Day, divided into three Meals, and about a *Truss* of *Hay* in a Week, besides *Greens* of different Kinds, of which he seemed fonder than of his dry *Viſtuals*; and drank large Quantities of *Water*.

He bore to be handled in any Part of his Body; but was outrageous when struck or hungry; yet pacified in either Case only by giving him *Viſtuals*. In his Outrage he jumps about, and springs to an incredible Height, driving his Head against the Walls of the Place with great Fury and Quickness, notwithstanding his lumpish Aspect.

As to his Size, he did not exceed a young Heifer in Height; but was very broad and thick.

The

* For want of such a Board a common Ruler is frequently used, to set the Number of Hours between the Flame of the *Candle* and the *Thread*.

The Horn stands on the Nose of the Animal, as upon a Hill; but as he is only two Years old, does not rise from its rough Basis above an Inch high, is black and smooth at the Top, like those of the Ox-kind, but rugged downwards. It grows backward, instead of straight up, as is shewn by the dotted Lines *a*.

His Under-lip is wider than his Upper, slanting outward to the lower Edge, and backward to the Neck; the Edges turn outward.

The Part that reaches from the fore Part of the Horn towards the Upper-lip, may be called the Nose, being very bulky, and having a kind of circular Sweep downwards towards the Nostrils. On all this part he has a great Number of *Rugæ* running cross the Front of it, and advancing on each Side towards his Eyes.

The Nostrils are situated very low, in the same Direction with the *Rictus Oris*, and not above an Inch from it. If we look at him in a fore View, the whole Nose, from the Top of the Horn to the Bottom of his Lower-lip, seems shaped like a Bell.

His Under-lip is like that of an Ox, but the Upper more like that of a Horse; using it as that Creature does, to gather the Hay from the Rack, or Grass from the Ground; with this Difference, that the *Rhinoceros* has a Power of stretching it out about six Inches to a Point, and doubling it round a Stick, or one's Finger, holding it fast: so that, as to that Action, it is not unlike the *Proboscis* of an *Elephant*.

As to the Tongue of the *Rhinoceros*, altho' it is confidently reported by Authors, that it is so rough as to be capable of rubbing a Man's Flesh from his Bones, yet that of our present Animal is soft, and as smooth as that of a Calf. Whether it may grow more rough, as the Beast grows older, cannot be determined.

His Eyes are dull and sleepy, much like those of a Hog in Shape, and situated nearer the Nose than that of other *Quadrupedes*. He seldom opens them entirely.

His Ears are broad and thin towards the Tops, much like those of a Hog, but have each a narrow round Root, with some *Rugæ* about it, and rise as it were out of a *Sinus* surrounded with a *Plica*.

His Neck is very short, being that Part which lies between the back Edge of the Jaw and the *Plica* of the Shoulder: On this Part are two distinct Folds, which go quite round it; only the fore one is broken underneath, and has a hollow Flap hanging from it, so deep that it would contain a Man's Fist shut, the Concave Side being forward. From the Middle of the hinder one of these Folds, or *Plicæ*, arises another, which, passing backwards along the Neck, is lost before it reaches that which surrounds the fore Part of the Body.

His Shoulders are very thick and heavy, and have each another Fold downwards, that crosses the Fore-leg; and almost meeting that of the fore Part of the Body, just mentioned, they both double under the Belly close behind the Fore-leg.

His Body, in general, is very thick, and juts out at the Sides, like that of a Cow with Calf. He has a Hollow in his Back, which is mostly forward; but backwards the Ridge rises much higher than that of the Withers; and, forming the *Plica* upon the Loins, falls down suddenly to the Tail, making an uneven Line. His Belly hangs low, being not far from the Ground, as it sinks much in the Middle.

From the foresaid highest Point in his Back, the *Plica* of the Loins runs down on each Side between the last Ribs and the Hip, and is lost before it comes to the Belly; but above the Place of its being lost, another rises, and runs backward round the Hind-legs, a little above the Joint, which turns up behind till it meets another transverse one, that runs from the Side of the Tail forward, and is lost before it reaches within two Inches of that of the Loins.

His Legs are thick and strong; those before, when he stands firm, bend back at the Knee, a great way from a straight Line, being very round, and somewhat raper downwards. The Hinder-legs are also very strong, bending backwards at the Joint to a blunt Angle, under which the Limb grows smaller, and then becomes gradually thicker, as it approaches the Foot; so also does that Part of the Fore-leg. About the Joint of each of his Legs, there is a remarkable *Plica* when he bends them in lying down, which disappears when he stands.

In some *Quadrupedes* the Ferlock bends or yields to the Weight of the Animal; but in this there is no Appearance of any such Bending; and he seems to stand on Stumps, especially if he be viewed behind. He has three Hoofs on each Foot forwards; but the back Part is a great Mat of Flesh, rough like the rest of his Skin, and bears upon the Sole or Bottom of his Foot.

This Part is plump and callous in the Surface, yielding to Pressure from the Softness of the subjacent Flesh. Its Shape is like that of a Heart, having a blunt Apex before, and running backward in a broad Basis. The Out-lines of the Bottoms of the Hoofs are somewhat femicircular.

The Tail of this Animal is very inconsiderable, in Proportion to his Bulk, not exceeding 18 Inches in Length, and not very thick: It has a great Roughness round it, and a kind of Twist or Stricture towards the Extremity, ending in a Faness; which gave Occasion to Authors to compare it to a *Spatula*. On the Sides of this flat Part, a few Hairs appeared, which were black and strong, but short. It is further to be observed, that the Hairs on the Left Side grow out a great Way up towards the Root of the Tail (being shorter, as they are higher) like the Fibres of a Quill; whereas, on the Right Side, they grow no higher than the flat Part. There is no other Hair on any Part of this young *Rhinoceros*, except a small Quantity on the posterior Edge of the upper Parts of the Ears. A very particular Quality is observable in this Creature, of listening to any Noise or Rumour in the Street; for tho' he were eating, sleeping, or under the greatest Engagement Nature imposes on him, he stops every thing suddenly, and lifts up his Head, with great Attention, till the Noise is over.

The *Penis* of the *Rhinoceros* is of an extraordinary Shape: There is first a *Zibca*, or *Præputium*, arising from the inguinal Part of the Belly, nearly like that of a Horse, which conceals (as that does) the Body and *Glands*, when retracted. As soon as the Animal begins to extend it, the first Thing that is extruded the *Zibca*, is a second Sheath of a light Flesh Colour, and pretty much in Form like the Flower of the *Digitalis Floribus Purpureis*; and then out of this another hollow Tube, which is analogous to the *Glaus Penis* of other Creatures, very like the Flower of the *Aristolobis Floribus Purpureis*, but of a lighter or fainter Flesh

Colour than the former. His Keeper, who was a Native of *Bengal*, would make him thus emit his *Penis* when he pleased, while he lay on the Ground, by rubbing his Back and Sides with Straw; and, in its utmost State of Erection, it never was extended to more than about eight or nine Inches. Its Termination is backward in a curved Direction; so that he is a retrorogent Animal, and consequently retrogenerative. When he urinates, he turns his Tail to the Wall, and, extending his Hind Legs asunder, crumps himself up, and pisses out in a full Stream as far as a Cow.

The Skin of the *Rhinoceros* is thick and impenetrable: In running one's Fingers under one of the Folds, and holding it with the Thumb at Top, it feels like a Piece of Board half an Inch thick. It is covered all over, more or less, with hard Incrustations like so many Scabs; which are but small on the Ridge of the Neck and Back, but grow larger by Degrees downwards toward the Belly, and are largest on the Shoulders and Buttocks, and continue pretty large upon the Legs all along down; but, between the Folds, the Skin is as smooth and soft as Silk, and easily penetrated; of a pale Flesh Colour, which does not appear to View in the Folds, except when the *Rhinoceros* extends them, but is always in View under the Fore and Hinder Parts of the Belly; but the Middle is incrustated over like the rest of the Skin. To call these scabbed Roughnesses Scales, as some have done, is to raise an Idea in us of something regular; which in many Authors is a great Inaccuracy and leads the Reader into Errors.

As to the Performance of this Animal's several Motions, let us consider the great Wisdom of the CREATOR, in the Contrivance that serves him for that Purpose. The Skin is entirely impenetrable and inflexible; if therefore it was continued all over the Creature, as the Skins of other Animals, without any Folds, he could not bend any Way, and consequently not perform any necessary Action; but that Suppleness in the Skins of all other Quadrupedes, which renders them flexible in all Parts, is very well compensated in this Animal by those Folds; for, since it was necessary his Skin should be hard for his Defence, it was a noble Contrivance, that the Skin should be so soft and smooth underneath, that, when he bends himself any Way, one Part of this board-like Skin should slip or shove over the other; and that these several Folds should be placed in such Parts of his Body, as might facilitate the Performance of every Motion he might be disposed to.

There is a Horn of one of these Animals in the Museum of the Royal Society, almost a Yard long, and at the Base about half a Foot over, in Colour and Smoothness like those of a Bull, and solid quite through; and if we consider the Size of the *Rhinoceros*, in Proportion to its Horn, that to which this belonged must have been a stupendous Animal in Size and Strength; and from his Fierceness when struck or hungry, appears to be quite indomitable and untractable, and must certainly run too fast for a Man on Foot to escape him.

He was not known to the *Greeks* till the Time of *Aristotle*, nor to the *Romans* till 85 Years before the Christian *Æra*; so that he seems to be the scarcest of all Quadrupedes. *Rhinoceros* is his *Greek* Name, from the Horn on the Nose; and he is with great Probability supposed to be the *Unicorn* of the Ancients.

The *Hebrew* Name, which in our Translation we render *Unicorn*, is by the *Septuagint*, *St Jérôme*, *Tertullian* and others, translated *Rhinoceros*; as in *Job* xxxix 9. *Numb.* xxiii. 22. and xxiv. 8. *Deut.* xxxii. 17. from whence, and from the general Accounts of the Ancients, we may ascertain, that this Creature is the strongest then known; and the *Rhinoceros* continues so to this Day, not excepting the *Elephant*: whereas the Authors, who have multiplied *Unicorns*, have not pretended their Force to come near that of the *Rhinoceros*.

To this may be objected the Epigram of *Martial*, concluding,

*Namque gravem gemino cornu sic extulit ursum,
Faciat ut impositas taurus in astra pilas.*

Lib. I. Epig. 22.

and the Medal of *Domitian*, on which is a *Rhinoceros* with two Horns.

But if it can be made appear that there are two Kinds of *Rhinoceros*, one *Asian*, and the other *African*, the first having one Horn, and the latter two; and that probably those brought to *Rome* were of the latter Sort, the Difficulty will vanish.

Now that brought from *Asia* to the King of *Portugal* in 1513, and those brought from thence to *England* in 1685, in 1739, and in 1741, were single horned; and a great Number of Horns in the Museums of the Curious, brought from the *East Indies*, are also single. We may therefore venture to assert, that all those of *Asia* have but one Horn on the Nose; and this is confirmed by many Gentlemen who have seen those Creatures in *Persia*. On the other Hand we are sure the *Romans* had always a great Commerce with the *Africans*, and had many Cargoes of wild Beasts from that Quarter of the World: It is therefore probable that they might more conveniently have obtained the several *Rhinoceroses* which were shewn in that City from *Africa* than *Asia*, as the former is so much nearer to *Italy*. And we do not want Proof that the *African Rhinoceros* has two Horns. *Peter Kolbe*, a *Dutchman*, in his Voyage to the Cape of *Good-hope*, says there is one in the Summit of the Nose like the others, but has a smaller Clove behind it. There are also two Horns in *Sir Hans Sloan's Museum*, sticking to the same Integuments, not more than an Inch from each other: All which makes it probable at least, that the *Asian Rhinoceros* was the *Unicorn* of the Ancients, notwithstanding those exhibited at *Rome* had two Horns; and Probability, in Questions of this Nature, is all that can be reasonably expected by the most diligent Enquirer.

Fig. VII. The Horn of the *Narwhale*, the greatest Length 14 Feet, with which he uses to penetrate the Ice to get Breath, and to raise Sea Weed for Food; and he has a short one on the Right Snout, which does not come out of the Flesh. *Mr Egede*, in his History of *Greenland*, supposes, as the Animals in the Sea resemble Land Animals, that this is the Sea Unicorn; but is doubtful whether that of the Land be not the *Asian Rhinoceros*, which has also a Horn on his Snout, rather than what is described by *Pliny*, or others, with the Body of a Horse, a Stag's Head, and a Horn in Front; an Animal not any where to be found.

Fig. VIII.

