

A Miscellaneous Catalogue of Mean, vulgar, cheap and simple Experiments. Drawn up by Sr. William Petty, President of the Dublin Society, and by Him presented to that Society

1. **T**HE Weight of a Cubical foot of Sea-Water, fresh River-Water, Spring-Water and Rain-Water; as also of Ale, French Wine, Brandy, Metheglin and Spanish Wine, Oil-Olive, Rape-Oil and Train-Oil?
2. The Weight of a Cubical foot of Wheat, Barly, Peas, Oats? &c.
3. The Quantity and Weight of Juice that ten pound of Apples, Pears, Goosberries, Mulberries, Peaches, and Grapes will yield in order to make Drink?
4. The Weight of a Cubical foot of Oak, Ash, Elm, Fir, Willow, Alder, Birch, Yew, Pear-tree and Box-timber, and the difference between the weight of the said timbers, extremely green and extremely dry?
5. The Weight of the Shell, White and Yelk of an Egg, viz. of Pidgeons, Hens, Ducks, Geese and Turkeys, and the proportion between the weight of the Egg and the Hen? &c.
6. The Weight of a Cubical foot of Wool, Tow, Feathers, Hey, &c. pres'd down with several weights?
7. The Weight of several Bottles and Cask which are in common use?
8. The Weight of a Cubical foot of Lime, Sand and Mold?
9. The Weight of Apples, Pears, Nuts and other fruits; as also their correspondent Numbers and Magnitudes?
10. Comparative Weight of a hundred Apples born upon the same Tree in several years?
11. Let there be a Bag of Wool, and Shot made thereinto

thereinto by a Musquet, Carbine and Pistol, and let it be observed how far each Bullet pierceth the same ?

12. What space several sorts of Animals will run in a minute *viz.* a Horse, Greyhound, Hare, Fox, Rabbit, even to a Loufe, and other creeping Animals ?

13. The difference of Flight of several sorts of Birds within the same time ?

14. What Proportion of each sort of Letters are in the English, Latin and French Tongues, &c.

15. Forasmuch as all Printers Letters are of the same height, *quære* the Weight of an Alphabet of the several usual sizes ?

16. *Quære* how many of each sort of Letters will stand in ten inches square ?

17. *Quære* how many Letters may be composed and distributed in an hour ?

18. What difference in the Duration of a Light made with Tallow, Bees-wax and Oil, and in Tallow of several ages and sorts ?

19. The Duration of Candles of the same Weight, and Weik of several bignesses.

20. The difference of Duration of the same Weight of several sorts of Pit-Coles, and the several weight of their Ashes, and of the several quantities of Water that the same will make to boil in the same sort of Furnace and Vessels ?

21. Of the Duration of several Matches and Coles, and of the time that several Woods will keep fire raked up in Ashes ?

22. Of the Strength of the same Fires on the several Blasts, and their different duration ?

23. The proportions of Nitre, Brimstone, and Cole, in the several sorts of Gunpowder ?

24. The proportions of Oil, Tallow, Salt and Lie in the several sorts of Soape ?

25. What proportion of Pitch and Tallow for the use of a Ship ?

What

26. What quantity of Tar goes for paying a yard square upon a Ship?
27. What are the proportions of Brimstone and Rosin for graving a Ship?
28. What the proportion of Lime and Sand for Brick mortar.
29. What the proportion of Lime and Hair for Plastering?
30. What the proportion of Linseed-Oil and Oker for Colouring and Priming?
31. What the proportion of Lead and Pewter for Solder?
32. What the weight of Wool and length of Thred in a yard square of the several sorts of Woollen Manufactures?
33. The same for the Manufacture of Hemp, Flax, Cotton, Hair and Silk?
34. The proportion of Meal, Water and Yeast in Bread, in Dow new baked and stale?
35. The proportion of Increase between Dow and the same fermented; between Barly and the same malted?
36. The Proportion of Hemp and Tar in a well-made Rope?
37. The quantity of Stuff in any Garment propounded, and the length of the several Seams and the Sewing Thread, and number of Stitches in the same?
38. The proportion between the Weight, and the Extent of the several Leathers in a shooe?
39. How many Shooes of a certain size, a Shooemaker can make up in a time given?
40. What length of Thred can be spun in ten hours, from Cable-yarn to Taylors brown Thred?
41. What is the length of an Ounce of all fine Thred?
42. To what extent may an Ounce of fine-Gold, Silver,

ver, Tin and Copper be beaten, and to what lengths the same may be drawn into Wire ?

43. What is the Weight of an Ox of 1, 2, 3, 4, 5 and 6 years old, in ten several degrees of Pasture in *Ireland* ?

44. How do several sorts of Trees increase in weight and height *per annum* ?

45. To how many does each sort of Seed multiply ?

46. What proportion doth the Kernel of an Apple bear to the Apple itself ; with the same for other Fruits and Plants ?

47. What is the difference between the Weight of Hytop and Wormwood, or of any other Herbs, upon the same square of Ground for one years Growth ?

48. What is the difference of the Worth of plowing the same quantity of Ground in ten several sorts of Land in *Ireland* ?

49. The quantities of Rain that fall in an hour upon the same scope of Land ?

50. The several weights of a Fleece of Wool at sheering, kept dry, and in a moist place ?

51. What difference in the weight of Hides of Cattel of the same weight ?

52. What difference in the way of Ships *per hour* in all varieties of cases ?

53. At a certain Point in t^he Sea, to observe the depth of the Water every hour of the year, with the swiftness and slowness of ebbing and flowing water between any two Points assigned ?

54. What are the differences of Illuminations from one to a hundred equal Candles in a parallel-sided Room ?

55. The different effects of the Wind, upon the Sound of a Bell ?

56. The different distances of time between the
Sound

Sound and Fire of a Gun, and the measuring of the distance of Thunder thereby ?

57. The difference of the weight of Animals by Transpiration, ordinary and extraordinary ?

58. The different proportions of the times of sleeping and waking in several Animals, particularly in Fishes ?

59. The proportion between the length, weight and thickness of the best Bows and Arrows ?

60. The different effects of Bows at several bents upon the same Arrow ?

61. The different weights of Indico, Madder, Cocheoneel, Weld, Fustick and Logwood, that will dy the same quantity of the same Stuff to a degree assigned ?

62. How much of each of the said dying stuff will produce black ?

63. What is the proportion of Copperas and Gauls for the dying of wool into a black colour ?

With infinite more Experiments of this kind.