

such a swiftness, that it will be able to carry it to a great distance : And because such a *Valve* shutting a great hole would prove very difficult to be opened, when the pipe *A A* is of a great Bore, the aperture towards *D* may be left much smaller than the pipe ; the swiftness of the Air being so great, that even through a pretty small aperture, it presses the lead *D* as freely almost as if the whole Bore was quite open.

Having prepared a Barrel carrying a lead of 2 ounces, the Experiment was shewn before the *Royal Society*, and the Effect was found very considerable, the force being little less than that of the *Wind-Gun* by compression ; the same experiment being afterwards repeated with a longer Barrel, 'twas found that the length in this way of shooting was very little, if any advantage.

*Part of a LETTER from Dr. Salomon Reifel,
Chief Physician to the Duke of Wirtemberg, about an
extraordinary Tincture given to a Stone : Stuttgardie,
Febr. 120. 1686.*

A Urifaber Stuttgardianus, qui & gemmis & Metallicis typis nummorum cudendorum insculpendis artificiosus est, nomine *Christophorus Muller*, Anno 1685, aurum *aqua regis* solutum, oleo *Tartari* præcipitatum atque edulcoratum, quod aurum fulminans dicunt, dum in scutella, quam *Maturellam* vocant, ex lapide *Chalcedonico* coloris unci pellucidi *onychini* feu *Cornei*, vitro pro fusione præparato rubro mixtum, & aqua fontana imbutum tereret, ad facienda *Encausta* feu *smalta* ; de quibus *Anton. Nerius* vertente *Andrea Friso*, egit *lib. 6. Artis Vitrariae* ; invenit iterato tertium eodem labore : quod color pulveris istius puniceus, qui per dies aliquot siccatus in vasculo manserat, quousque inter terendum

rendum etiam ad marginem effluit, relictis tamen puris hinc inde spatii Onychini coloris, durissimam hanc gemmam, quæ limam spernit, ita profunde penetraverit, non tantum in scutella, sed & ipso pistillo, & distinxerit maculis atque circulis sat ordinate ductis, ut color hic neque simplici aqua, neque lixivio, vel acriori alio liquore potuerit deleri, & quidem sine polituræ elegantioris detrimento.

Talis itaque tinctura per repetitas trituras dicti pulveris tentata denuo aliquoties, in similis coloris alio Vasculo, neque vero apparuit postea ut antea nunquam. Sed hoc imprimis circa tinctionem hujus vasculi observandum est, quod secundum texturam gemmæ, tam nudo quam armato oculo, in tincta interna, & sincera externa parte vasis, notentur fibræ seu ductus circulares, juxta quos, bracteis succi lapidei novi per intervalla impositis, in ejusmodi molem excrevisse credendum est; uti Bezoar aliique lapides laminis super accrescentibus augentur, & ligna, in quorum ultimorum trunco, circuli seu annuli designant succi annui numerum & incrementa: adeo ut hic, purpureus ille color lineis pallidioribus & obscurioribus, prout vel densiores vel rariores poros, molliorem vel duriorum texturam offendit, circulares ambitus circa verticem aliquem, veluti circa medullam seu cor, ut appellant, aut granum aut paleam in aliis lapidibus & lignis, signaverit; intermissis quoque hinc inde maculis & spatiis obscurioribus. Veluti Illustr. Boyle, Specim. de Orig. & Virt. Gemmarum, §. 1. pag. 22, 23, in Adamante & Granatis acies & commissuras tenuium bractearum aut planorum observavit; quod granum artifices seu planam contexturam non dissimilem fissilitati ligni vocant.

Jam vero tingi posse quoque Marmora & Alabastra & Ossa per lixiviatos & acres succos, hinc inde scriptum est: quod fortassis & de Gemmis sperandum est, quando Rob. Boyle Cit. §. 2. pag. 123. ex iis tincturam manifestam extractam esse scribit, alibi, p. 43. & 190. per vapores minerales tinctos esse crystallos petrosos, atque pag. 45. ipsum Sapphirum per vapores subterraneos.

Cum

Cum denique ex observatione nostra manifestum sit, revera tinctam esse gemmam Chalcedoniam, quamvis fortuito acciderit, neque repetito processu simile quid evenerit, merebitur tamen meditationem, an ex astrorum fluxu, aliave abscondita potius vi venerit, & tentamen, an ex mixtura salium & succorum acrium possit imitando produci ejusmodi Tinctura, & quidem sine Igne, ut splendor & Pelluciditas gemmæ non destruat, durities autem maneat, adeoque ipsa gemmæ pretiositas non tantum fervetur, sed & per tincturam novam crescat.

Hujus Tincturæ figuram & modum, si forte quem delectet, addere placuit, qualis noctu opposita Candelæ visa fuit, aliquomodo nec satis accurate delineatum. Tab. 1. Fig. 6.

A CATALOGUE of *Simple* and *Mixt Colours*,
with a *Specimen* of each *Colour* prefixt to its proper
Name: By R. WALLER, Fellow of the Royal
Society.

HAVING sometime since seen a TABLE of the *Simple Colours* made use of in *Limning* and *Painting*, Printed in the Year 1680, at *Stockholm*; I have here endeavoured to give a more *Philosophical*, and useful one by the addition of some *mixt Colours*: Not that I pretend to give the *Shades* of all the *mixt Colours*, which were indeed infinite as the Compositions and Proportions of them may be unlimited; but I have mixt each of the *Simple Yellows* and *Reds* with each of the *simple Blews*, and these *Mixtures* give most of the *mean Colours*, viz. *Greens*, *Purples*, &c. To know what each of these *mean Colours* is compounded of, you need but look to the Top of the *Table* directly over the *Colour* enquired after, where you may find the One *Ingredient*, and at the Side in
the

Tab 1.

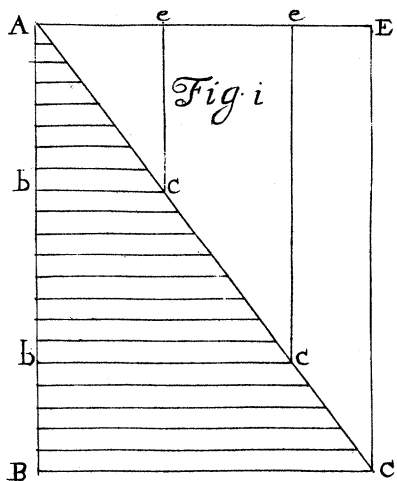


Fig. 1.

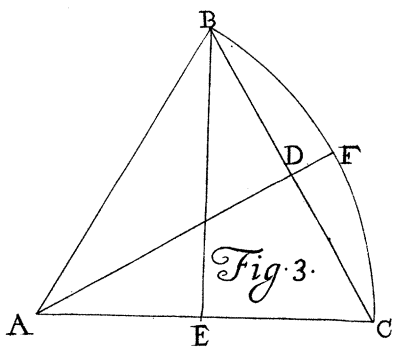


Fig. 3.

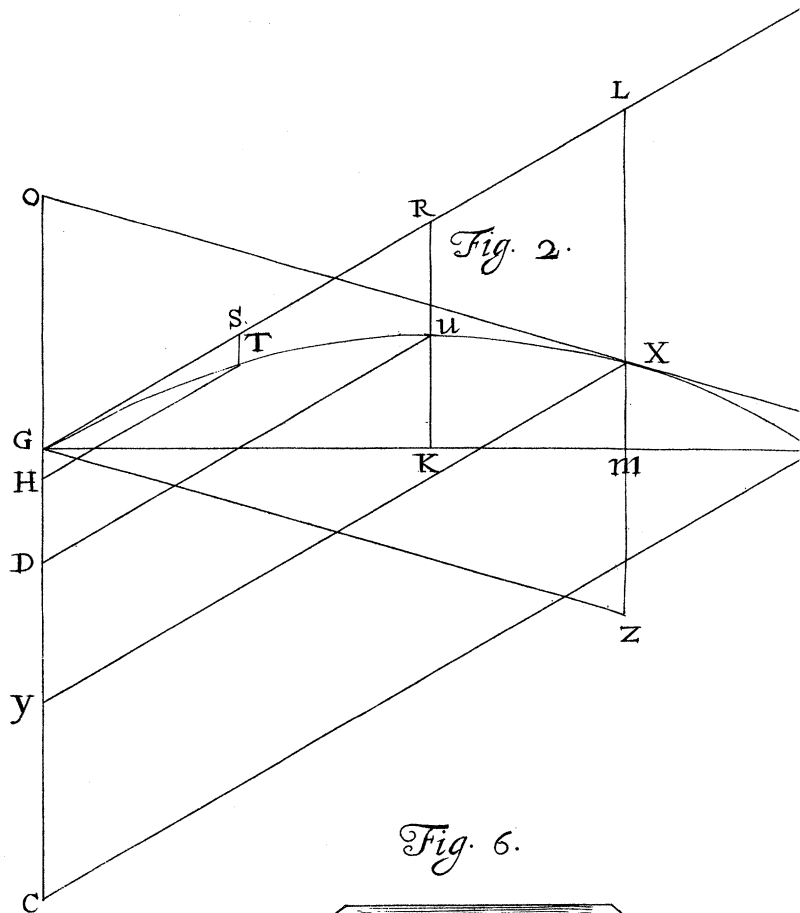


Fig. 2.

Fig. 6.

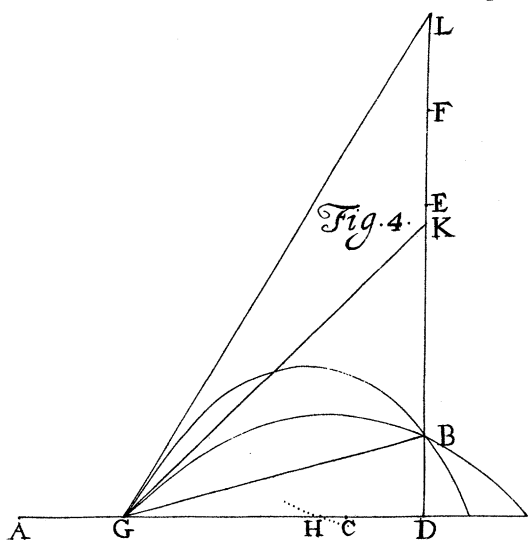


Fig. 4.

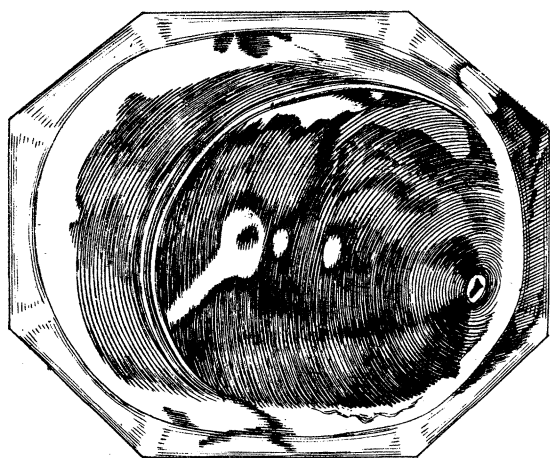
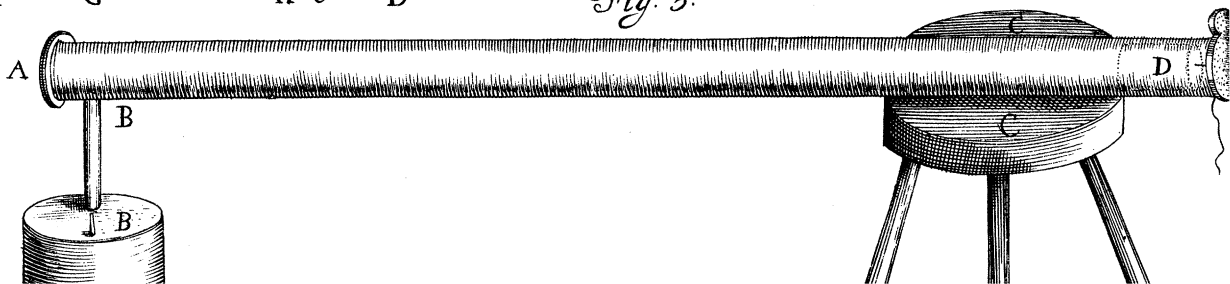
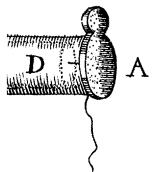
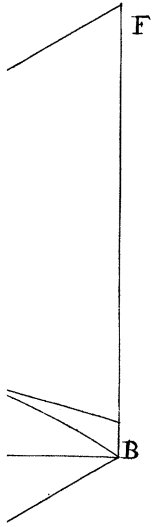
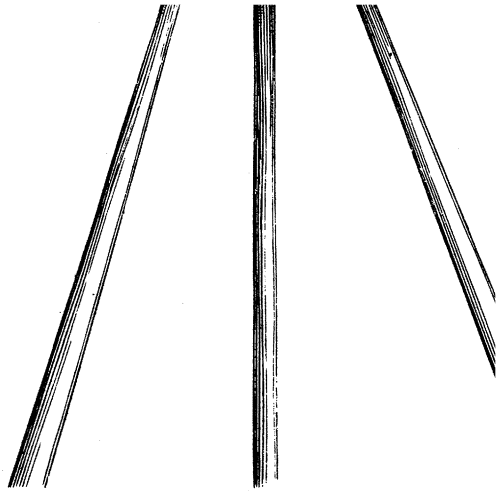
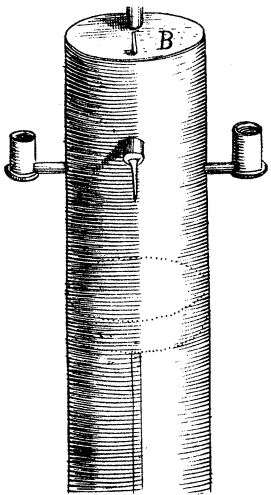
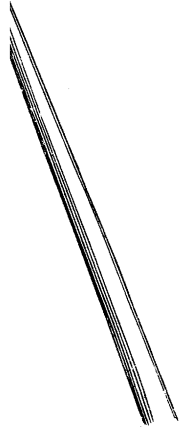


Fig. 5.









Tab 1.

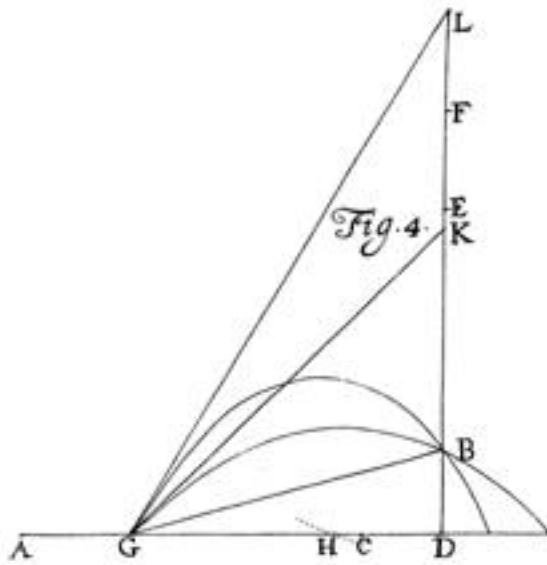
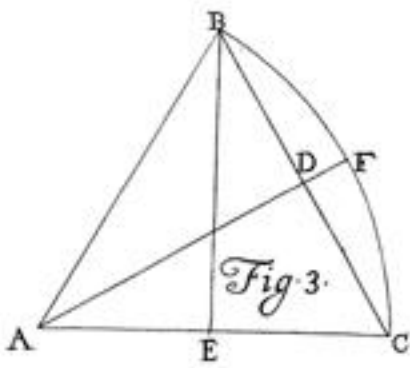
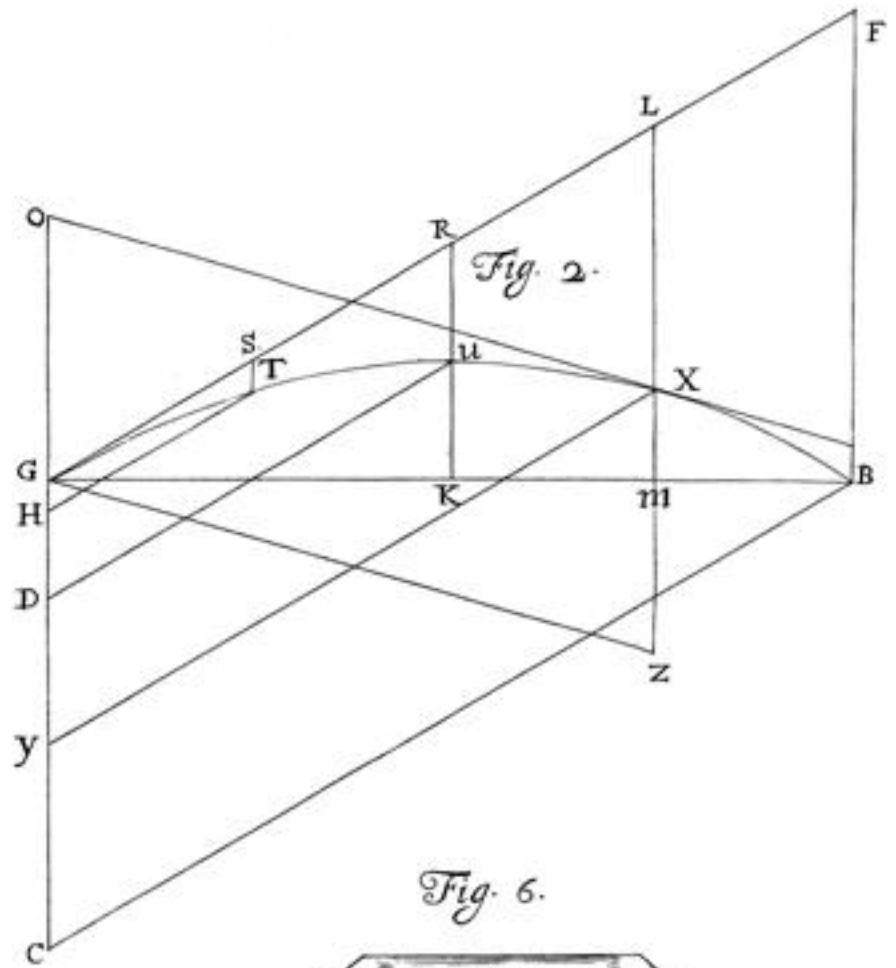
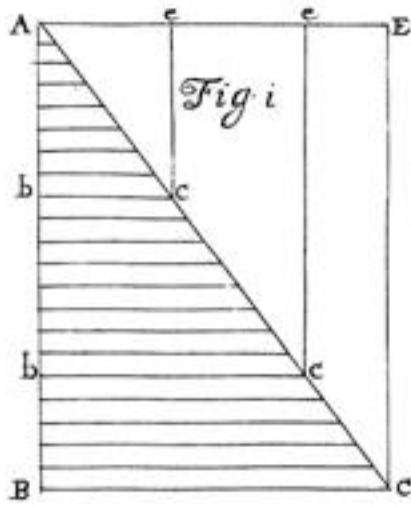


Fig. 5.

