

any one, that hath any insight in the *Opticks*, may easily direct. The nearer it is placed to the object, the more is the Object magnified on the Wall, and the further off, the less; which diversity is effected by Glasses of several spherics. If the Object cannot be *inverted* (as 'tis pretty difficult to do with Living Animals, Candles, &c.) then there must be *two* large Glasses of convenient Spherics, and they plac'd at their appropriated distances (which are very easily found by tryals) so as to make the representations *erect* as well as the Object.

These Objects, Reflecting and Refracting Glasses, and the whole Apparatus; as also the Persons employ'd to order, change and make use of them, must be placed without the said high Window or Hole, so that they may not be perceived by the Spectators in the room; and the whole Operation will be easily perform'd.

The particular manner of preparing the Objects, adapting the Glasses, collecting the Rayes of the Sun, varying the Object, making the representations of the Sky (by the help of other Glasses) and of Clouds (by the help of Smoak) &c. I intend, hereafter, when I have leisure and opportunity, more particularly to describe; as also the way, of making a natural *Landscape*, &c. to appear upon the walls of a *light* room; which will not only be very pleasant, but of great use in painting. Whatsoever may be done by means of the Sun-beams in the day-time, the same may be done with much more ease in the night, by the help of torches, lamps, or other bright lights, plac'd about the Objects, according to the several sorts of them.

So far our Inventor; who hath not contented himself with the bare speculation, but put the same in practice some years since, in the presence of several members of the *R. Society*, among whom the *Publisher* had the good fortune to see the successful performance of what is here answered.

An Extract of a Letter lately written by Mr. S. Colepresse, from Leiden, to the Publisher, about the making of counterfeited Opal, and the Recovery of the Art of making Red-glass.

SIR, You may perchance remember, that some time since,
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there was a discourse at *London* of a certain pot of *Glass-mettal*, which brake in the *Glass-house* at *Woolidge*; in the bottom of which was found a quantity of *Opal-glass*. And although the very persons, who had compounded it, endeavoured to repeat that accidental Experiment, yet they could never bring it to pass, as I was inform'd by a person concern'd in it. The last week I was two daies at *Harlem* on purpose to see the Experiment of the making of this counterfeit'd *Opal-glass* which is there done by Rule. It is very lively, I confess, and as I guess, perform'd only by the degrees of heat, producing the Colors; of which degrees I have by me several, I took notice of, with some curiosity, in the operation. When the Composition is thoroughly melted, they take out some on the point of an *Iron-rod*, which being cool'd either in the *Air* or *Water*, is colourless and pellucid; but being put into the mouth of the furnace on the same rod, and there turn'd by the hand for a little space, hath its little bodies so variously posited in several parts of the same piece, as that the light falling on them, being variously modified thereby, represents those several Colours, that are seen in the true *Opal*. Whether it be the greatest, or least degree of heat, that renders it a white opaque Body, I have let slip; but this I know, (which seems remarkable) that the colours of it may be destroy'd and restor'd, according to the various motions (I suppose) of its particles by heat.

They also make there the *Amethyst* and *Saphir*; and have recover'd the hundred years loss of incorporating *Red-glass*; and have some mettal, that is esteem'd to equal *Chrystal* in hardness as well as colour. To give you an account of their Mill to grind, and Engins to polish Looking-glasses, will be needless: I only add, that they can diamond or square their looking-glasses in their Grinding-mill.

*Some Animadversions, written in a Letter by Dr. John Wallis, on a printed Paper, entitul'd Responso Francisci du Laurens ad Epistolam D. Wallisii ad Cl. V. Oldenburgium scriptam.**

* See this Epist. num 34. Transp. 654.

Epistolam tuam, Vir Clarissime, quæ *Du Laurensii* impressam chartam
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