any one, that hath any infight 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 spheres. 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 Spheres, and they plac'd at the rappropriated distances (which are very easily found by tryals) so as to make the representations erest as well as the Object.

These Objects, Resteting 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 per-

form'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 Landskip, &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 daytime, 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 sortune to see the successful perform-

ance of what is here onswered.

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, Nnn 2 there

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 counterfeited opal-glass which is there done by It is very lively, I confess, and as I guess, perform'd only by the degrees of heat, producing the Colors; of which de. grees I have by me feveral, I took notice of, with some curiofity, 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 flip; but this I know, (which feems remarkable) that the colours of it may be destroy'd and restor'd, according to the various motions (Isuppose) 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 polith Looking-glaffes, will be needless: I onely add, that they can diamond or square their looking-glasses in their

Grinding-mill.

Some Anima versions, written in a Letter by Dr. John Wallis, on a printed Paper, entitul'd Responsio Fran-\* See this Ecisci du Laurens ad Epistolam D. Wallisii ad Cl. V pist. num 34. Oldenburgium scriptam.\* Tran p.654.