palace in flames, then drawing up the sixth, let down the first, that the palace may appear entirely destroyed by the conflagration.

The fourth act may represent the environs of Troy, with a distant prospect of the sea. The first and third glasses of the first act may be used here, to which may be added a third, representing Aeneas bearing his father Anchises, followed by his son Iulus, and some Trojans. With this glass may be represented the flight of the Trojans, and the embarkment of Aeneas, with another glass, on which are painted certain vessels.

To this act the following scenes may be added. The cave of Aeolus; the back part of the cave; Aeolus; the winds; Juno in her chariot.

The fifth act should represent the open sea, with the fleet of Aeneas sailing for Italy.

On the first glass must be painted the sea, as in the tenth recreation, or else the waves should imitate by another glass under the first.
On the second, The Trojan fleet.
On the third, Neptune in his car.
On the fourth, the Palace of Jupiter.
On the fifth, the inside of the Palace; the Gods assembled in council, with Venus, obtaining leave of Jupiter for Aeneas to land in Italy.

After having placed the first glass, that represents the calm sea, the curtain is raised, and the second scene is advanced, which contains the Trojan fleet. The first is then brought forward, to represent a violent tempest: then raising the third glass, Neptune appears, who commands the waves to be still, which is done by making the tempest subside by degrees. The fleet advances, and passes over the whole theatre: presently after the fourth and fifth scenes descend, that represent Olympus, and finish the exhibition.

Note. We must here repeat, that if you would represent a subject of this sort to advantage, it is quite necessary that the glasses be well painted: and those that are to be in front, should be in stronger and more opaque colours, that the images of those behind may not appear mixed with them, which will be the case if they are all equally transparent.

The glasses should also be of different lengths, that some being placed before the others are drawn away, their extremities may not be perceived.

The larger these subjects are represented the better effect they will have: the front of the theatre should appear to be about three feet wide: and, as we have said elsewhere, if some parts of the figures were moveable it would still add to the variety of the entertainment.

This and most of the other Recreations we have here given in the two first parts of Optics, appear to have been invented by M. Guyot, who has taken no small pains in the improvement of this sort of recreations.

FOOTNOTES

1 It is quite necessary to make the lantern much larger than common, that the objects painted of the glasses being of a larger size, may be represented with greater precision, and consequently their several characters more strongly marked.

2 In the decorations, the clouds and the palaces of the Gods should descend; caves and infernal palaces should ascend; earthly palaces, gardens, etc. enter at the sides.

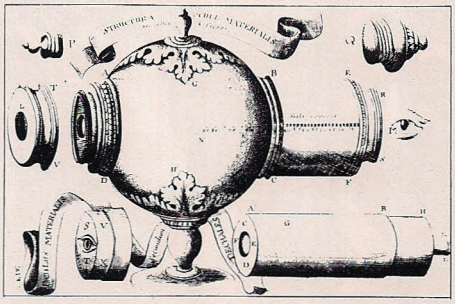
3 All the glasses that are to rise and descend must be bordered with thin pieces of wood, and so exactly fill the grooves, that they may not slide down themselves.

4 He that moves the glasses, seeing the effect they produce, is the better able to render the presentation as natural as possible.

PUZZLE CORNER

Regular readers of the *NMLJ* will remember that in Vol.2. No.2, January 1982 we ran a jig-saw puzzle and a competition on pages 15 and 16. We publish here a photograph of the completed jig-saw and the winning entry for the competition which was submitted by Derek Jones. Newsletter readers will be familiar with Mr Jones' charming 'Emmett Style' drawings that David Henry has featured from time to time. We feal sure that you will agree his hilarious solution to the competition deservedly merits his prize of a years free membership to the Magic Lantern Society. Congratulations and thanks Derek, lovely words!

The illustration incidentally is from *OCULI ARTIFICIALI TELEDIOPTRICO* by Johanes Zahn, which is Volume 2 of his optical treatise, of 1686. (We would invite all you latin scholars to enlighten us with an exact translation of the title and accompanying text to this intriguing drawing. Copies of the original text may be obtained from the retiring editor on request!



STRUCTURA OCULI MATERIALIS

The apparatus shown is not strictly of an optical nature, except in as much as the eye is used to check the temperature on the *'Scala menforia'* of the thermometer enclosed within cylinder GEHF.

The engraving is in fact, a representation of the 'UTRECHT ROYAL BABY FEEDER' invented in 1743 by the Utrecht Court Physician.

P and Q are exchangeable teats which can also be used simultaneously at each end (AD; RS) to feed two infants at the same time.

The ornate sphere contained hot water with warmed milk placed in the central cylinder. A removable glass peep-hole at RS enabled inspection of the thermometer.

GEHF – the inner cylinder – moves telescopically within ABDC — the outer cylinder SO THAT THE INFANT CAN MOVE HIS HEAD whilst feeding.

The lower tubes shown in the engraving are essentially EXTENSION TUBES for use with infants sitting at further distances from the nursery table.

The telescopic nature of this extension system affords the same benefit as regards infant head rigidity.

The Royal Baby Feeder was not entirely satisfactory by all accounts since leaks were hard to prevent — even with a liberal smearing of wax.

It is, however, reported that a coloured glass pattern was sometimes inserted at GH in the *empty* apparatus. It gave an attractive appearance when viewed through RS (or KL in the lower diagram).

Derek Jones