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The young man's book of amusement

Halifax, 1848

The Kaleidoscope

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the glasses are very much compressed, the central spot is dark.

The Kaleidoscope.

The principal parts of the Kaleidoscope are two reflecting planes made of glass or metal, or any other reflecting substance, ground perfectly flat, and highly polished. These reflectors may have any magnitude, but in general, they should be from four or five to ten or twelve inches long, their greatest breadth being about an inch when the length is six inches, and increasing in proportion as the length increases. When these two plates are put together at an angle of 60, or the sixth part of a circle, and the eye placed at the narrow end, it will observe the opening multiplied six times, and arranged round the centre.

Changes of the Kaleidoscope.

The following curious calculation has been made of the number of changes this instrument will admit.

Supposing the instrument to contain twenty small pieces of glass, &c. and that you make ten changes in each minute, it will take the inconceivable space of 462,880,899,576 years, and 360 days to go through the immense variety of changes it is capable of producing. Or, if you take only twelve small pieces and make ten changes in each minute, it will then