Poor Mrs. Benson endeavours to keep cheerful, and to look delighted during the hubbub, and now the dinner, by her efforts alone, is upon the table, her husband comes in, *and perhaps* wonders the "pie is not better warmed," and with this comment and a smile on the baby, he is off till it is time for tea. I forbear to finish the day, Mr. Editor, and shall only say that the afternoon is made up of *little trials, too small to mention*, but large enough to try the faith and patience of all the patriarchs.

Now, sir, this wife has surely borne the "burden and heat of the day;" her limbs are wearied; her whole energy of mind and body exhausted, and she is exhorted "to welcome her husband with a smile." She does it, for woman's love is stronger than death. I would ask, should not Mr. Benson give his wife a smile? What has he done to lighten her cares through the day? How is it? In nine cases out *of ten, after sitting* idle an hour, he wishes Mrs. B. would put all those noisy children to bed; he should be glad to have her tell David to go to the post office for letters and papers, and at length, when half way between sleeping and waking, he looks at his pale exhausted *help mate*, and exclaims, "well, wife, you *begin* to look a little fatigued."

I cannot ask you, Mr. Editor, if my picture is not a true one, for you are a stranger to the ways and cares of a married life; but I pray you, be more just, and now and then exhort husbands to do their part towards *making home* agreeable to their wives, when the latter have, like Atlas, borne a world of cares and vexations through the day.—CLEODORA.
—*American paper.*

THE FACTS AND REVELATIONS OF MODERN ASTRONOMY.

(From the North British Review.)

The article from which the following extracts are made, is attributed to Sir David Brewster.

In Dr. Nichol's work "On some important points relating to the System of the World," he treats of the material universe under two different aspects,—as represented in space and time by the grander phenomena of the heavens—and as represented in time by the evolutions of *individual globes, such as* the earth which we inhabit. Under the first of these heads, he describes the structure and extent of the sidereal arrangements, and explains the grounds upon which he has modified his former views relating to the *constitution of nebulæ*; and he has illustrated this part of his work with beautiful and highly interesting engravings of the more important nebulæ, as given by Sir John and Sir William Herschel, and as more recently exhibited in the great telescope of Lord Rosse. In the second part of his work, he treats of the analogy of the planets with the earth, and of the epochs of evolution through which the earth has passed—of the subsidence and elevation of seas and continents, the instructive phenomena of coral reefs, and islands;—and the interesting speculations of M. de Beaumont, respecting the age of mountains, and the different epochs at which the mountain chains of our globe were raised *into their present position*, are discussed with much ingenuity and eloquence, and illustrated by plates and diagrams, which cannot fail to add to the popularity of the work.

The limits necessarily assigned to this article, will not permit us to follow either, and still less both, of our authors, through the whole range of their discussions, and we must therefore perform the more difficult task of giving a general view of the system of the universe, and some of the more remarkable phenomena which are displayed in nearly every one of the planetary bodies which it is in our power to explore. In following this plan we shall carefully abstain from all extravagance of speculation, and call the attention of the reader to those facts and phenomena alone which must command universal belief, and to cautious deductions which reason and analogy will not fail to confirm.

The first and grandest object which arrests the heavenward eye is the glorious sun, the centre and soul of our system, the lamp that lights it, the fire that heats it, the sceptre that guides and controls it,—the fountain of colour, which gives its azure to the sky, its verdure to the fields, its rainbow hues to the gay world of flowers, and the "purple light of love" to the marble cheek of youth and beauty. This globe of fire is 883,000 miles in diameter, or 111¼ times the diameter of our earth, and is 500 times larger than all the planets put together. It seems to consist of a dark nucleus, which is seen through openings in the luminous crust, called the spots in the sun. It is therefore not an incandescent globe, and there is reason to think with M. Arago, that its light is that of burning gas. The light of the sun moves with the velocity of 192,000 miles in a minute. It is composed of three different colours, red, yellow, and blue, by the combination of which all the different colours in nature are produced. The solar light has more blue and less red *in it* than the artificial white flames with which we are familiar, and what is very remarkable, these artificial white flames contain many specific rays of a determinate refrangibility, which do not exist in the sun's light, from which they have probably been absorbed either in the process of combustion, or during the subsequent passage of the light through the solar atmosphere. The sun revolves round his axis in 25 siderial days, and occupies a fixed position in reference to the other bodies of the system. Around the sun, and at the distance of 36 millions of miles, the planet Mercury revolves in nearly 88 days. Its diameter is only 3140 miles, and it revolves about its axis in 24 hours and 5 minutes. The best time for seeing this planet, which exhibits several of the phases of the moon, from a little more than a half moon to a thin crescent, is about one hour and three quarters before sunrise in autumn, and after sunset *in spring*. Mercury is occasionally seen in the form of a round black spot, passing across the sun's disc, a phenomena which will occur on the 9th November, 1848, the 11th November, 1861, and on the 4th November, 1868. According to Sir William Herschel's observations, the disc of Mercury was always equally luminous, without any dark spot or ragged edge; but M. Schroeter saw not only spots but mountains, the height of two of which he measured, and found one to be about a mile and a quarter in height, and the other about ten miles and three quarters, or near thrice as high as Chimborazo. We are not aware that these observations have been confirmed. Captain Smith looked for the spots on Mercury through his achromatic telescope, but though he did not find them, he should not have omitted, as he has done, all notice of the observations of Schroeter. The telescope of Lord Rosse will soon decide these and other disputed points in astronomy.

Next to Mercury the planet Venus revolves round the sun at the distance of sixty-eight millions of miles, in 224 days, 16 hours, performing her daily revolution about her axis in 23 hours 21 minutes. The diameter of Venus is 7700 miles, or a little less than that of the Earth. This planet is known even to the most illiterate observer, as the splendid morning and evening star, which occasionally precedes the rising, and follows the setting of the Sun. She shines with a peculiar brilliancy, giving a distinct shadow to opaque objects, and she exhibits all the phases of the Moon. Venus was mentioned by the prophet Isaiah as a morning star 2600 years ago, and is also noticed by Homer and Hesiod. Her splendour could not fail to attract popular attention, and being the nearest planet to our Earth, and almost of the same size, astronomers expected to discover analogus resemblances between the two. Sir W. Herschel and Schroeter have examined the surface of Venus with peculiar care. Both of them observed that the light is strongest at the outer limb, from which it decreases gradually to the interior edge. Sir W. Herschel saw spots upon the inner margin of the luminous crescent, not very unlike those seen long before by Bianchini. According to Schroeter, the light at the inner margin terminates in a ragged edge, and the cusps or horns of the planet are alternately blunt and sharp, a phenomenon which Schroeter supposes to arise from the shadow of a high mountain. This astronomer, who noticed that one of the cusps was bent like a hook, with a pale blue light at its apex, ascribed the appearance to the twilight produced by the atmosphere of the planet. Schroeter measured the altitude of four mountains in Venus, the highest of which were, as in Mercury, in the southern hemisphere. The highest was 22 miles, the next 19, another 11½, and lowest nearly 11 miles. Judging from analogy astronomers expected to find a moon or satellite revolving round this planet. Cassini, and Short, and Montaigne, declare positively that they saw it; but, notwithstanding the charge of dogmatism which Captain Smith has made against those who ascribe this observation to an optical illusion, we have no hesitation in repeating that opinion. It is surely more reasonable to believe that a false image of so bright a planet usurped the place of a satellite, than that the star seen by Short and others, and never seen since, had been blotted out of existence.