

SOLUTION TO QUESTIONS IN THE NOVEMBER NO.

1st.—From the question it appears that the perpendicular of the triangle, is the radius of the semicircle, and the square of the perpendicular of an equilateral triangle being 3 times the square of half the side—if x be put for half the side, the area will be expressed by $x \times (3x^2)^{\frac{1}{2}}$; and this by the question being equal to 100, the perpendicular will be found to be 13 16; which, multiplied by 2, gives 26 32, the diameter required.

2d.—If the base of the triangle be bisected by a line drawn parallel to the perpendicular, it is easily shown that the bisecting line is one half of the perpendicular, and the area of the triangle cut off is one-fourth of the whole triangle, or 24 square feet, and the sides are 6 and 8 feet.

3d.—The effects of heat are reciprocally proportional to the square of its distance from the centre, whence it is propagated, therefore the mean distance of the sun from us being 106 of his diameters, it is the square of 106 or 11236 times hotter at the surface of the sun, than under our equator.

M. N. W.

THE AMARANTH,

TO OUR PATRONS.

In taking a retrospective view of the contents of the twelve numbers of the Amaranth, which we have presented to the public, a source of pride and gratification is afforded to us, when we contemplate the result of our labours. It is with feelings of pride that we can say, that through the means of the Amaranth, we have elicited many talented productions, which, in its absence, would possibly have never been composed; and our pleasure is of that rational kind, in beholding their publication in our pages, and through our humble instrumentality, which time will increase rather than have a tendency to diminish.

Twelve months have elapsed since we embarked in the present undertaking. We entered upon the field with anxious feelings, when we looked forward and anticipated what might be the practical result. The favourable testimony we received on the publication of our first number, cheered and animated us in the arduous pursuit. Our contributors—to whom we take this opportunity of expressing our grateful acknowledgments—have steadily increased; and the estimation in which their efforts were held, whilst it afforded us additional gratification, it gave another stimulus to our

exertions, in furnishing to the public a work, which we can say, and we trust without subjecting ourselves to the imputation of vanity, has been honourable to all parties, who have been so zealously engaged in it.

Proud as we have reason to be of the original contributions in the Amaranth, yet our better judgment is not so dazzled as to be blind to its failings, or to imagine for a moment, that it has any pretensions to rival our contemporaries of the old country—it is gratifying to us to feel assured that it is creditable to the new. Such of our friends, who love New Brunswick as ardently as we do, will feel an honest pride in beholding the varied specimens of literary labour, which the Amaranth exhibits, and hail it as the humble, yet certain advent, of more noble and elevated productions. We trust that in this respect the day is not far distant when our brightest anticipations will be more than realized. To the best of our ability, we have earnestly endeavoured to contribute towards this desirable attainment, and even now, when we realize the infant state of the Province, we have no just reason to complain at its present advancement in literary taste, but but on the contrary, we dwell with pleasing reflection upon what has already been furnished by the natives of New-Brunswick, towards the rational amusement and edification of their countrymen. "In viewing the majestic ruins of Rome or Athens, of Balbec or Palmyra, it administers both pleasure and instruction to compare them with the draughts of the same edifices in their pristine proportion and splendour," so in scrutinizing the gem of what will hereafter become the tree of knowledge, abundant and glorious in its fruits, our feelings of patriotism and of ambition are awakened, and it is with honest pride that we recognize talent and assiduity striving to plant and adorn our domestic walks with native literature.

The Amaranth,

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