

shine forth more than it does to the peace of mankind and to the glory of the Infinite. When philosophy runs parallel to the idea of one God, one faith, one baptism, that all the phenomena in the world of mind and of matter follow the Law of Causation; when the church comes in teaching the mysteries of the Supernatural and a relation of spirit and matter untenable, and explained only by the word "faith"; when students are taught the pre-eminence of right reason, that nothing should be accepted as true in physical or mental and moral science, that *contradicts* reason—recognizing mystery as that only lying beyond finite reason to account for; or when, in other words, taught that that may be accepted, which lies beyond reason, if it does not contradict it, and then when required by so-called orthodoxy to accept what manifestly contradicts the simplest forms of reason, it necessarily follows that a man must sacrifice something of his intelligence or silently reserve it, or remain outside and drift perhaps into indifference. To some of these it might be encouraging to know that religion may be enjoyed, and that Christianity is possible outside of the orthodox church.

(TO BE CONTINUED.)

To the Editors of the YOUNG FRIENDS' REVIEW:

My attention has been called to an article which occurred in the last issue of your paper, entitled "Coloring of Autumn Leaves," and at the request of one of your patrons, I submit the following:

To answer the question of the autumnal coloring of the leaf, let us consider its physiology. A leaf consists of: Fibro-vascular bundles or woody fibre which constitutes the framework of the leaf. Parenchyma which constitutes the green tissue or pulp of the leaf. Epidermis which constitutes the covering of the leaf.

It is the parenchyma or tissue that we especially wish to consider. The parenchyma cells contain protoplasm, chlorophyll and cell-sap. The chlorophyll is the essential constituent of the parenchyma cells. The word is derived from two Greek words meaning green

and leaf. It is the chlorophyll which imparts the green color to the leaf. It is through the chlorophyll that the work of the leaf is carried on; for it is only through this that the leaf can perform its function. The chlorophyll is the little chemist that converts the carbon-dioxide [ $\text{CO}_2$ ] and water ( $\text{H}_2\text{O}$ ) with mineral matters in solution, into starch ( $\text{C}_{12}\text{H}_{20}\text{O}_{10}$ ). Sunlight is the motive power, since chlorophyll acts only under the influence of light.

When the year's work of the tree is finished the leaf is no longer needed. The chlorophyll breaks up into various matters of unknown composition, but comparable to the erythrophyll (reddish coloring matter) and zanthrophyll (yellowish coloring matter) which may artificially be obtained from chlorophyll.

The products of disintegration are withdrawn from the leaf into the plant, and the leaf falls. It is the breaking up of the chlorophyll that causes the change of color in the leaf. These colors are not due to the action of frost, although the change is sometimes hastened by the cold.

Honeoye Falls, N. Y. OLIVE DAVIES.

I really fear the public will think that the YOUNG FRIENDS' REVIEW does not know what a "sonnet" and a "Spenserian stanza" are. In number 5, a little gem of poetry by A. M. B. was called a "sonnet." The next number said it was not a "sonnet" but a "Spenserian stanza." The fact of it is, it is neither. The last line is one foot too short for a "Spenserian stanza." If you want anything more than a "gem" you may call it a little poem in "Heroic Measure."

It was still more surprising to see the last number call "Autumn Lessons," by E. M. Z., in number 5, a "sonnet." Surely these terms do need to be reviewed as our last number suggests. Let us do it now and here. A "sonnet" is a poem of fourteen lines or verses (look up also verse). These lines are iambic pentameters or heroics, and rhyme in a peculiar manner. For examples turn to the one from Milton, embodied in "Review of Noted Friends" on first page of number 4, or to the one on first page of number 6, which was written with more attention to perfection in form than in sense.