



The Family Circle.

EDWIN ARNOLD TO ALFRED TENNYSON.

No moaning of the bar; sail forth strong ship
Into that gloom which has God's face for a far light.

THE STUDY OF THE STARS.

(A. F. Beach, in Scientific American.)

During the beautiful autumnal evenings few persons can look up into the starry dome of heaven without longing for a better acquaintance with the glowing orbs whose

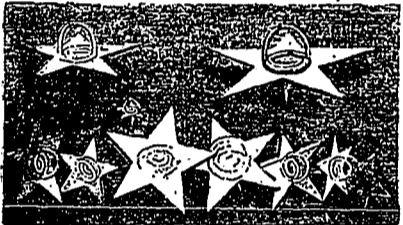


Fig. 1.—Luminous Stars.

radiance meets the view in every direction. If one turns to the star maps and books of astronomy, there will be found clearly laid down the history, names, colors, magnitudes, and positions of all the principal celestial bodies.

To assist the amateur, whether old or young, in the study of astronomy, to render the opening lessons easy and attractive, and insensibly to interest his mind in this most ennobling subject, has led me to design the simple devices which I will now describe.

One form is as follows: I provide a sheet of card-board, say two feet square, one side of which is covered with what is known as luminous paint.

In use the luminous board is held as shown in the engraving, and on it are placed the paper stars. The holder of the board glances upward at the sky, notes the position of the stars, and then arranges their counterparts upon the luminous board.

In this simple way the forms, positions, and component stars of all the principal heavenly bodies may quickly be learned by any person without a teacher; and the

study, while it instructs and impresses the mind, is, in the highest degree, fascinating. A still simpler device, but in the same line, is to cut the stars out of the luminous cardboard, and then arrange and pin them as before described upon the surface of a wooden board, say two feet square, painted dead black.

A light, convenient, non-warping star board may be made by gluing together, crosswise, three sheets of pine wood veneers. It is needless to occupy space in describing all the uses of this device for promoting the first lessons in star study.

A ROUGH NIGHT.

The ostler of the quiet little inn of Redruth was startled from his sleepy reverie by the rattle of carriage wheels.

The iron horse, with its snorting, puffing haste, had not yet invaded the town, for its inventor was not even born!

"Must Mr. Wesley it be, surely!" And Peter—for that was his name—bustled about to care for the steaming horses, while their master was fed inside.

"Good Mr. Pembertley, I must get to St. Ives to-night, and my servant, who has driven me here, knows not the way.

Have you one you can depend upon to drive me there?"

Mr. Pembertley stroked his chin in true landlord fashion—"Well, yes, there's our Martin, he knows the road; you should start early, though."

"Well said, I am ready; let him drive me."

So the faithful ostler got on the box, and the lumbering coach, with a thwack and a hurroo, went over the rough stones of the little narrow street, with Mr. Wesley inside.

On they went till the pretty little town of Hayle was reached.

"I'm afraid we're too late, Muster Wesley—the tide is rising, and the only way we can go is across the sands."

"Go on, my man, I must get there."

"Beg pardon, sir," said a rough, weather-beaten captain, who saw they were starting for the sands, "you won't get to St. Ives that way to-night, or, if you do, it's an awfully dangerous road. I shouldn't go, if I was you!"

"I must—I must keep my appointment. I am to preach at eight o'clock, I will not disappoint them."

"Take the sea, take the sea," he shouted to the hesitating driver, and away they went, plunging at once into the fringe of the advancing tide.

No easy work had the horses, however. They floundered about, and the farther they went the more the waters seemed to swirl round them. Now and again the wheels of the carriage would sink into the great pits and ruts in the sands.

Presently, above the roar of the waters, the worn-out driver heard a voice, and, turning round, saw Mr. Wesley looking out of the carriage window the very picture of calm trust, although the salt spray ran down his white locks and over his face.

his Master's business—nothing could harm him.

"What is your name, driver?" he called. "Peter, sir," was the reply, half-drowned by the dashing waves.

"Peter! Peter! fear not; you shall not sink!"

Mr. Wesley's dauntless spirit put fresh courage into the disheartened man, and by dint of shouts, and spurs, and whip, the tired and exhausted animals were induced to make fresh efforts against the remorseless waters, and with many a plunge and splash and fearful swaying to and fro of the coach, he succeeded in getting through the belt of water which runs into St. Ives Bay, and soon the welcome lights showed the end of their perilous journey was near, and the coach was once more on firm ground, and rattled up to the door of the church, where the expectant crowd was waiting, not disappointed in hearing the great preacher.

What encouragement the kindly voice of Wesley gave the poor wearied coachman as he struggled through the fierce waves! It reminds us of One infinitely mightier than any earthly friend, who bids his people be of good cheer, and assures them that, though they pass "through the waters of trial, or affliction, or sorrow," they shall not overflow them, because "I the Lord thy God will hold thy right hand, saying unto thee, Fear not" (Isa. xli. 13).—H. Hankinson, in Our Own Magazine.

WHAT PROHIBITION DOES.

Prohibition makes tippling unlawful and disgraceful, and that is much to the credit of Prohibition. If we cannot yet put the devil in chains for a thousand years, let us at least drive him out of good society, compel him to hide in the dark and the dirt, and not protect him with our laws and our courts of justice.—The Golden Rule.

IT NEVER MAKES US a bit broader to go up and down the earth declaring that somebody else is narrow.



THE STUDY OF THE STARS—THE LUMINOUS BOARD.