

The Family Circle.

## ITDWIN ARNOLD TO ALFRED TEN

 NYSON.No moaning of the bar ; sail forth strongship Into that gloom which has God's face for a far light:
Not a dirgo but a proud farewell from cach fond lip.
And praise, abounding praise, and Fame's fain sfarlight,
Lamping thy luneful soul to that large noon Where thon shalt choir with ningels. Words o woo
Are for the unfulflled, not thee whose moon Of genius sinks full-orbed, glorious, aglow No moaning of the bar, musical drifting, Death's soft wind nill thy gallant canvos liftin And Christ thy pilot to tho pence be.

## THE STUDY OF THE STARS

## (at. E, Beach, in Scientife American.)

During the beautiful autumnal evenings few persons. can look up into the starry dome of heaven without longing for $a$ bette 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 cleenrly laid down the history, nanes, colors, magnitudes, and positions of all the principal celestial bodies. But when, ifter studying the map, he goes out of doors, thinling to carry the chart in his mind, and easily to locate and recognize individual members of the glittering lost, he is sadly disappointed. To his untrained oye the glorious stars appear the same as before, all mixed in inextricable confusion; and for him the map
is of little value. Discouraged with the is of little value. Discouraged with the people abandon the matter and go through life without ever gaining ann insight into this the sublimest of the sciences, and never experience the inexpressible delights that experience thie inexpressible delig.
attend on this grandest of studies.
To assist the amateur, whether old or young, in the study of astronony, to render tho opening lessons easy and atrractive, and insensibly to interest his mind in this most ennobling subject, has led me to de-
sign the simple devices which I will now sign the
describe.

One form is as follows : I provide a sheet of card-board, say two fect square, one side of which is covered with what is known as luminous paint. This remarkable substime has the quality of sioring up thie sunlight, and gradually delivering the same in the darkness. The paint is $n$ chemical combination, chiefly of lime and sulpliur. This luminous sheet I pin upon a light wooden board. I also cut out of common cardboard a ferr small stars of different sizes, to represent stars of the first, second, third and fourth magnitudes, and provide each star with a central pin.
In use the luminous board is held as shown in the cngraving, and on it are placed the paper stars. The holder of the board glances upward at the sliy, notes the position of the stars, and then arranges thir counterparts uponthe luminousboara, the glowing purphe light of which, even in with the utmost ease and satisfaction.s The with the utmost ense and satisfaction, The
counterfeit stars being thas arranged.and counterfeit stars being thus arranged.nnd
fastened upon the board, it is taken infastened upon the board, it is taken in-
doors and'compared with the map or chnit, doors and compared with the map or chnit,
with which the selected group is instantly with whicl the selected
recognized and mamed.
In this simple way tho forms, positions, and component'stars of all the prinicipnl heavenly bodies may quiokly be learned by any person without a teacher; and the
sind, while it instructs and mpresses mind, is, in the highest degree, ascinating A still simpler derice, but in the same line, is to cut the stars out of tho laminous cardboard, and then arrange nand pin then wooden board, say two feet square, painted dead black. In this caso the no vable stars will appear luminous on the board, even in the darkest nighti. Instead of using ordihary pins, wire round staples bent up a howre in Fig. 1 , will be found convenient these are casily ingered nnd quiokly placed is desired.
A light, convenient, nom-warping star board may bo made by gluing together, crosswise, three shicets of pino wood vencers. It is needless to occupy spaco in describin all the uses of this devico for promoting the first lessons in star study. Suflice it to say that with the contrivanco in hand, togethe with star maps, such as those that were pre pared for the Scientific American by the ate Richard A. Proctor, any person may soon become an intelligent student of the skies ; and his knowledge may be greatly supplemented and extended if, at the same Hime, he provides himself with the adminable book, "Astronony with an Opera Glass," by that most excellent observer and writer, Mr. Garrets P. Serviss.

## A ROUGH NIGHT.

The ositler of the quiet little inn of Redruth was startled from his sleepy reverie by tho rattle of carriage wheels. Here was customer at last
The iron horso, with its snorting, puff ing haste, had not yet invaded the town, for its inventor was not even born ! So carriage and post horses land it all their own way.

Muster Wesloy it be, surely !"
Ancl Pcter-for that was his namebustled albout to care for the stenming horses, while their master was fed inside. "Good Mr. Pembertley; I must get to St. Ives to-night, and my servant, who has driven mo here, knows not the way.

Have yout one your enn depend upon to Mr mo there?
Mr. Pembertley stroked his chin in true Mondord fashion-" Well, yes, there's our Martin, lie knows the road you should start early, thougli."
'Well said, I am rendy; let him drive

## me.'

So the faitliful ostler got on the box, and the lumbering coach, with a thwack and a hurroo, went over the rough stones of the ittle narrow street, with Mr. Wesloy inide.
On they went till the pretty little town of Hayle was reached.
"I'm afraid we're too late, Muster Wes-ley-the tido is rising, and the only way re can go is across the sands.

Go on, my man, I must get there."
"'Beg pardon, sir,", saida rough, weatherbeaten 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 arfully dangerous rond. I shouldn't go, i I was you?"
.must-I must keep my appointment. I am to preach at eight o'clock, I will not disappoint them."

Take the sen, take the sen," 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
swinl round them. Now and again the swinl round them. Now and again the
wheels of the carraige would sink into the Wheels of the carringe would sink into the
reat pits and ruts in the sands. Poter sreat pits and ruts in the sands. Peter
Find hard worl to keep in the sadde, while he poor frightened, struggling horses reared and plunged as the great waves, now beginning to roll in, would sphesh at their sides and smother them in spray.
Presently, aboye the roar of the waters, , worn-out drive Mi. Wesley looking out of the carraige window the very picture of calm trust, although the salt spray rain down his white looks and over his face No thought of fear had he! He was on

his Master's business-nothing conld harm | his |
| :--- |
| hin. |

Wart is your name, driyer? ? iecallea Peter, sir," was the wreplym biale drownod by the dashing wavos:

Peter l Peter! fear not; you shall not sink!
Mr. Wesley's dauntless spirit put fresh courage into the disheartened mant nind by dint of slinuts, and spurs, and whip the tired and exhausted animals were induced oo make fresh efforts against the remorse less waters, and with many a plunge and splash and fearfulswaying to and fro of the conch; he succeeded in getting through tho bolt of water which runsinto St. Ives Bay, and soon the walcome lights showed the and of their perilous journey was near, and he conch was once more on urm ground, and rattled up to the door of the church, Ghere the expectant crowd was waiting, not disnppointed in hearing the great proncher,
What oncouragement the kindly voice of Wesley gave the poor wearicl conchann as struggled through the ficree wives! t reminds us of One infinitely mightier thain any earthly friend, who bids lis pooplo the of good cheer, and assures them lat, though they pass "through the waters of trinal, or affliction, or sorrow," they shall not overflow them, because "I the Lord thy God will hold thy right hand siying unto thee, Fear not" (Isin. sli. 13)
H. Hankinson, in Our Own Aragazine.

WHAT PROHIBITION DORS.
Prohibition makes tippling unlawful and disgraceful, and that is much to the credit of Prohibition. If we camnot yet put tho devil in chans for a thousand years, let us nt least drive him out of good society, com rel him to hide in the dark and the dirt, and not protect him with our laws nad our courts of justice.-Thie Golden Rinte.

Ir Never Makes us a bit broader to go up and down the earth declaring that some-

the ston or The siars-thr Luminove boamd.

