vinced him that the rule on which he had been laboring was unreliable, for the reason that the stars are not distributed with any assignable uniformity through space, nor is their apparent magnitude any criterion of their relative distances.

"He then adopted another plan, on which he labored for many years, and by which he once more swept the heavens, zone by zone, as before, only in the last case, instead of confining himself, as he had done on principle, to one telescope, and counting the number of stars through it, he now used several telescopes of different degrees of power of penetrating into space, and made a careful record of the reports given to him by each

"His huge labors, extending through forty-two years (from 1780 to 1822), and devoted mainly to the endeavor to gain reliable information as to the extent and configuration of this starry universe, revealed to him many new and wonderful facts, but brought him very little if any nearer a satisfactory answer to his original inquiry. Some of these discoveries I will try to explain to you, but before doing so will have to say a word or two about a certain portion of the heavens which awakened his deepest interest, and that was the Milky Way. "And now," said the dominie, pausing and looking over his company of eager listeners, "who of you boys can tell me anything of the Milky Way?"

Many hands were raised, but the eyes of most were directed to Walter Branham, the oldest of the company, evidently desiring him to answer for them.

"It is a long, irregular, whitish-looking belt or cloud," he said, "that we may see any clear night spanning the whole sky."

"It always looked to me," said Johnny Pratt, "as if it were the place where the comets get their tails."

The dominie smiled as little Willie Jones added, "Or else the place where the comets rub off their tails, and leave them lying loose."

"I have heard country people say," Alf Arnold quizzically remarked, "that the milk-maids used once to travel that way, and that they stained it with their milk. But I never could learn how they managed to get there."

"Your answers all show that you know what I mean," the dominie rejoined. "The *Milky Way*, as we call it in English, or *Via Lactea*, as it is called in Latin, or the *Galaxy*, if we use the Greek word meaning the same thing, is a broad belt of faint light like that of comets' tails, irregulaly encompassing the whole heavens, partly double or mottled here and there with spots much brighter than the rest. When Sir Wm. Herschel turned his giant telescope upon the Milky Way it was no longer a cloud, nor was it faintly luminous, but it was by far the most glorious part of the heavens. Its soft white light was resolved into a countless multitude of stars, each too small to be discerned by the naked eye, except when hundreds and thousands blended their individual rays together and shone by a combined and therefore confused light. The first revelation made by his grand telescope was that the Milky Way is a brilliant *sheet of stars*.

"Another revelation was that, although the stars in the Milky Way were generally distributed with a fair degree of uniformity, they were in other parts crowded together or separated from each other in a remarkable manner. Occasionally there were starless spots, looking like holes in the bright concave, through which he could look to the utmost bounds of the universe, yet not see a star. At other times, as the heavens revolved slowly before the field of his telescope, the stars would number many thousands to the hour, and in one case as many as fifty thousand. Indeed in one solitary little white spot, not one-tenth the diameter of the moon to the naked eye, but which his telescope magnified to the size of many times the moon's diameter, he calculated that there were at least twenty thousand stars visible at one view.

"Another fact revealed was that some of these star-clusters were probably *systems*, bound together by some natural law of aggregation. Not that they were *binaries*, as described in our last talk, in which a pair of stars revolved around each other; nor double nor triple binaries, in which several pairs revolving thus around each other revolved also in pairs around a point central to the group; but that they were collections of stars, by hundreds and thousands, in round forms, either globular or disk-like, and having in some cases a starless space between them and other clusters as if the mass of material constituting each cluster