Scientific American.

MUNN & CO., Editors and Proprietors.

PUBLISHED WEEKLY AT

NO. 37 PARK ROW, NEW YORK.

O. D. MUNN. A. E. BEACH.

TERMS.

One copy, one year, postage included.....$3 20
One copy, six months, postage included..... 1 60

Club Rates:

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Over ten copies, same rate each, postage included..... 2 70

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VOLUME XXXII., No. 24. [NEW SERIES.] *Thirtieth Year.*

NEW YORK, SATURDAY, JUNE 12, 1875.

Contents.

(Illustrated articles are marked with an asterisk.)

TWO VIEWS OF THE VOYAGE OF LIFE.

Taking the law of continuity as the basis of their argument, the authors of "The Unseen Universe, or Physical Speculations on a Future State"—the latest and one of the ablest of the many attempts to reconcile religion with Science—have endeavored to prove that the scientific view of the composition and government of the Universe is in the closest harmony with the view presented in the Christian records: that Science, legitimately developed, instead of appearing antagonistic to the claims of Christianity, is in reality its most efficient supporter; and that the burden of showing how the early Christians got hold of a constitution of the unseen Universe, similar to that which Science proclaims, is transferred to the shoulders of the opposers of Christianity.

It is a bold attempt to carry the war into Africa, and one well deserving the attention it is commanding. It lying without our province, however, either to oppose or to defend the claims of the Christian records, we can observe only that the authors of this clever essay, like their predecessors in the same field, are chiefly successful in reconciling a fanciful scientific conception of the Universe with an equally fanciful interpretation of the written records; and consequently, while it is exceedingly suggestive, the work is exceedingly unsatisfactory.

A characteristic illustration of the authors' inability to appreciate the position of scientific thinkers is afforded by their comparisons of the two sorts of investigators—those who study the How of the Universe and those who study the Why: in other words, the men of Science and the men of religious speculation—to two sets of passengers on a great ship plying between two well known ports. The one set, they say, keep on deck and try to make out, as well as they can, the mind of the steersman regarding the future of their voyage after they have reached that port to which they know they are all fast hastening, while the other set keep down below and examine the engines. Occasionally there is much wrangling at the top of the ladder where the two sets meet, some of those who have examined the engines and the ship asserting that the passengers will all be inevitably wrecked at the next port, it being morally impossible that the good ship can carry them further. To whom those on deck reply that they have perfect confidence in the steersman, who has informed some of those nearest him that the passengers will not be wrecked, but will be carried safely past the port. And so the altercation goes on: some who have been on deck being unwilling or unable to examine the engines, and some who have examined the engines preferring to remain below.

The work professes to regard the problems of the unseen Universe from the standpoint of Science, but the writers have been quite unable to divest themselves of their theological prepossessions: from first to last, as in the foregoing comparison, the theological bias is paramount. Science does not and cannot look upon the voyage of life, or the voyagers, in any such manner. Mankind are not all passengers in the same ship, though they may be regarded as sailors on the same sea. Each has a vessel to himself—the fragile craft he finds himself in possession of when his day of self-consciousness comes—and must guide it with such knowledge as he may gain by his own observation and the advice of those who have been longer afloat.

The sea is stormy, the winds conflicting, the currents baffling. Out of the mists on every hand, new crafts are constantly appearing; and on every side, at every stage of wind and weather, multitudes are disappearing: now in the calm noonday, now buffeted by midnight storms, now wrapped in fog and mist, they go down like so many Schillers, and the survivors drift on, knowing that the same fate will sometime overtake them also.

But what is that fate? Why was their voyage cut short, and what was the purpose and the purport of it?

These are the questions of the disciples of the Why: and their answers are confident. "The Great Pilot knows, and he has told the pilot of our fleet that those who sail with us are not wrecked but translated to another sea, where, with a better craft, they shall sail eternally in fair weather. If they have swerved from the right track, then their wreck is dire indeed: on a sea of storm and darkness, they suffer perpetual disaster."

"How shall we know the right way?" the anxious voyager asks.

"Sail with us," is the reply. "Long ago, the Great Pilot gave the captains of our fleet a chart of this sea and one of the seas to come. He still guides the winds and the waves for our good. If we follow his chart (or the leaders who remain in communication with him), we shall surely suffer no wreck, but shall be transferred to the halcyon sea, for the navigation of which we are now in training."

But the disciples of the How remain aloof.

"Whither are you going?" our voyager asks.

"We do not know."

"Do you not sail for the halcyon sea, or fear the sea of darkness and great storm?"

"We have no knowledge of them," is their reply.

"But the charts which the Great Pilot gave: have you not seen them?"

"We have seen many that claimed that title," is their reply: "we have studied them with care. We find little information of the sea we now are sailing, and in what they give they conflict with each other and with what we know to be true by our own observation. And they differ still more with regard to the seas unseen. Wherefore should we trust them?

"Worse: the seamanship of the followers of these charts is deplorably bad. They come to untimely disaster: and sometimes sanguinary battles occur between these fleets which claim the special guidance of the Great Pilot, each striving to compel those they deem perversely sailing to tack about and go with them. We cannot trust them."

"What seek ye then?"

"These things," the disciples of the How reply: "to learn the sea that surrounds us—the ways of the winds and the currents, the places of the quicksands and the reefs: to learn the nature of our fragile crafts that we may make them staunch and keep them from all avoidable risks; to perfect our seamanship as best we may, that our voyage may be long and helpful to our fellow voyagers: all these for our own good, and for the good of those who shall sail this sea when we are gone."

"And what of the seas unseen?"

"We know them not: we have no means of knowing them: no time to waste in speculations regarding their possible existence and character. If such there be, and we go to them when our voyage is ended here, of this we confident: good seamanship here is not likely to be bad seamanship there: the study of the Now will not unfit us for the enjoyment of the Then.

"But have you no care for the Why of all these things?"

"Indirectly we have; but the faculties we possess give us no clue thereto except through the How. When we have mastered the laws of this perplexing sea of phenomena, when we have learned the nature of this environment of ours, what it is and how it came to be, we may be prepared to consider Why it is. Until then we must wait; for there is no one to tell us for the asking."

Such are the real relations of the two orders of men—the men of Science and the men of religion—to each other and to the Universe. And theology will have to change its plane of thought and ways of thinking more than the authors of "The Unseen Universe" have been able to do, before they can establish for themselves even a theoretical oneness with the purposes and conclusions of Science.

THE SECRET OF SPRING WEATHER.

Our late erratic spring has provoked the usual amount of comment and discussion, yet we have failed to notice any attempt to trace the causes of the persistent chilliness of the air in the face of the sun's manifest power, or to account for the sudden summer heat of May.

Not that there has been anything extraordinary in the conditions of the weather this year. Spring in our climate is always an uncertain blending of winter and summer, each retaining much of its native peculiarity; so that it is no uncommon thing for a morning mild as June to be followed by a snowstorm in the afternoon, or for an icy wind, piercing as an arctic blast, to sweep the open country, while in sheltered places the sun burns with midsummer intensity. Such contrasts are tiresomely common, yet they never cease to strike us as something abnormal. In spite of our yearly experience to the contrary, we persist in thinking that winter's severity ought to let up gradually; that the transition from winter to summer ought to be as gentle and uniform as the change from summer to winter. Why it is not and cannot be may be worth a moment's thought.

It is well known that one of the chief factors of climate is the sun's altitude. The more nearly vertical its rays, the greater its power. The sun's position, however, is not the only factor. If it were, February would be as mild as October, April as hot as August. When under favorable conditions we experience the sweltering heat of the sun's untempered rays in spring time, we are apt to say that it must be through contrast with the winter's cold that we feel the heat so keenly. But we deceive ourselves. During the months when winter lingers in the lap of spring, the days are as long, the altitude of the sun is as great, and the heating power of his rays is as intense as in midsummer. Their failure to mitigate more rapidly the severity of the season is due to the simple fact that they have other work to do.

To change a pound of ice at 32° to water of the same temperature requires the expenditure of 143 units of heat, each capable of raising, when converted into mechanical motion, a pound weight 772 feet high. In melting a pound of ice, therefore, more than fifty-five foot tuns of solar energy is exhausted. Think what an incalculable amount of solar radiation is required to melt the millions of tuns of ice and snow every spring between this and Greenland!

During the fall months, immense amounts of water are converted into ice in the northern hemisphere, setting free an enormous amount of heat to reinforce the rays of the declining sun, giving us an Indian summer at a season when the weather would be coldest did the temperature depend upon the sun alone.

This year winter lingered unusually late, and summer came with a burst. The ice in the lakes and rivers was uncommonly thick, and the ground was covered deep with snow. To convert this snow and ice into water taxed the sun's power, so that it was not until after it had reached the northern tropic and was southward bound again that it began to gain on the wintry weather. It will be remembered also that the greater part of the snow was not merely melted, but evaporated. It disappeared while we were anticipating disastrous floods—not through the rivers, but into the air.

Had the snow gone off in the form of water, each pound of it would have exhausted 55 foot tuns of solar energy. To convert it into vapor required about seven times as much, or 372½ foot tuns, that being the mechanical equivalent of one pound of water vapor. In view of the vast amount of snow and ice evaporated this spring, it is not surprising that the approach of warm weather was so dilatory. It was the price we had to pay for exemption from floods and freshets.

Having cleared the ground of snow and snow water, the sun was free to give its full force to the earth, which, in the absence of the usual spring rains, was speedily put in condition to convert the sun's rays into heat for the warming of the air. Consequently the interval was brief between reports of ice floes in the harbor and sunstrokes in the streets.

THE RIGHT TO INTERFERE.

The right of every man to dispose of his labor as he sees fit, or to conduct his business affairs according to his own ideas, so long as the rights of the community in general are not trespassed upon, is so well founded in common sense and justice that it seems hardly to require a judicial decision to add to its truth. Still the principle is one which, as the recent labor strikes in the coal regions and in various trades throughout the country fully evidence, the trade unions persistently ignore, and probably will continue so to do until the law becomes stringent enough, and is administered with sufficient vigor, steadily to crush out any proceedings savoring, however slightly, of conspiracy or undue coercion. We do not believe that any right-minded laboring man will indorse the lawless actions of the "Molly Maguires" of the mining districts, or of any of the misguided people who resort to violence to obtain their ends; nor should the course of such bands be taken as exemplifying the usual mode of trade union coercion. When men commit deeds, no matter under what guise or for what object, which put them under the ban of the law, they become equally criminal with the thief or the assassin, and their punishment is identical. We think, or at least we want to think, that ruffianism is fast reaching a low ebb in our trade societies, and that misguided actions are done more through error of judgment than with criminal intent. Certainly we adhere to the belief that good intentions on the part of the men predominate over bad; but on the other hand it is not to be lost sight of that the very best of motives may underlie practice which in itself is highly prejudicial to the rights of other people. And here we reach the boundary, on one side of which lie those appeals to a man's cupidity, or sense, or honor, or any other sentiment he may possess, which are perfectly justifiable from his friends or from others interested with him in a common pursuit if made in one way, and on the other those same appeals made in another manner, which, from its very nature, includes an apparent conspiracy against a third person. Thus, there is certainly no harm in A endeavoring to show to B that B is losing money or injuring his interest by working for C, and that he could improve both the affairs of himself and