

truth for its own sake. Scientific truth, when found, has often proved unpalatable to man—as when it dethroned him from his fancied seat at the centre of the whole perceptible universe, a universe he had imagined simply subservient to his needs—or again, as when it taught him that instead of being a creature altogether apart from brute creation, there are flesh and blood bonds between himself and them. Regardless of its cost to his cherished fancies, man strives for scientific truth. And, as the old Greeks said, this purpose puts him further from the brutes and nearer to the gods.

In nurturing science I would urge that a community cultivates more than mere utility. And even with regard to mere utility, as the fields of knowledge fall ripe under the ceaseless husbandry of the world's thought, those who would join in the great reaping, and not only glean where others reaped before them, must cultivate for themselves. To do this requires more than the devotion of individuals. It requires the intelligent co-operation of whole groups of individuals. Organized scientific inquiry becomes in advanced countries a conscious aim of the community as a community.

THE VARIOUS WORKERS.

That society may draw due benefit from wells of natural knowledge, three kinds of workers have to stand side by side. First, the investigator, who, pursuing truth, extends discovery, with little or no reference to practical ends. He constitutes the fountain-head of the knowledge that is for distribution. Other hands may reap the harvest, but his sets and rears the seed.

After the investigator comes the teacher. To him it belongs to diffuse the knowledge won. This honorable and difficult task receives its best reward in seeing the small spiritual beginnings of a pupil widen out into the spiritual beginnings of a master. Thirdly, there is the applier of natural knowledge. His part consists in making scientific knowledge directly serve practical needs. It is this work which to the popular idea often represents the whole of science, or all of it that is commonly termed "useful." The practical results of this work are often astounding to those ignorant of the steps by which they have been reached. The greatest of these steps, however, is usually the first one, made in the laborator, of the investigator. These three co-workers are co-equal in the priesthood. Science and the applications of science, are one growth, united together even as the fruit and the tree. The proper hearth stone round which the community should group these laborers, laboring for a common end, is the Univer-