the resources of the observatory, to continue its astronomers and its instruments in the present situation. A petition was presented to Congress (1878, Jan. 10), from prominent men of science, asking for its removal, and Jan. 16, 1878, a bill was introduced by Mr. SARGENT in the Senate, providing for the appointment of a commission to select a suitable site. In the mean time a plan for the new building had been prepared at the observatory, submitted to all the prominent astronomers of the country for their suggestions, corrected and adopted. The report of the Commission, consist, ing of Admiral AMMEN, U. S. N., Colonel BARNARD-U. S. A., and LEONARD WHITNEY, Esq., was made 1878, Dec. 7. It recommended the purchase of "Clifton," a beautiful site of 45 acres in Georgetown, situated on Rock Creek.

Unfortunately, it was not learned until after the report was made, that it had been seriously contemplated to build a railway down the valley of Rock Creek. This report was not acted on, owing to the fact that the presence of a railway would seriously interfere with the stability of the instruments. Therefore a new commission was appointed Feb. 9, 1880, consisting of Senator W. P. WHYTE, Representative L. MORSE, and Admiral RODGERS, U. S. N., under a bill approved Feb. 4, 1880, which appropriated $75,000 to the purchase and selection of a suitable site. The officers of the Observatory were directed to examine the many sites offered for sale. These lay in three different parts of the city: first, north of the capital near the Soldiers' Home Park, and near the Baltimore & Ohio Railroad; second, north of the main part of the city; third, northwest of the city, in Georgetown. The preferences were for the sites in the first section. Each site that was at all eligible was tried in the following way: the fundamental observations depend upon the accurate measures of the zenith-distances of stars. As the zenith is not a visible point the nadir point (which can be made visible, and which is directly opposite the zenith point) is chosen. A box of quicksilver is placed immediately beneath the meridian instrument and the position of the reflected images of the spider lines of the instrument observed; when these coincide with the spider lines seen directly, the instrument is vertical or it is pointing to the nadir. Such observations as these have to be made at all hours of the night and day, and anything that seriously interferes with them will prevent the taking of satisfactory observations. The question then was, to try each of the proposed sites with this test and to unhesitatingly reject any site which did not fulfill the conditions. To do this a post was firmly planted in the ground. On the top of this a flat basin containing quicksilver was placed. A telescope was directed towards the quicksilver about dusk, so that the image of the pole star should be seen in the telescope. This image usually showed as a neat quiet round disk. The times of the passing of railway trains was known, and at these moments the image of the star was watched. For many of the places tried, the vibration of the mercury surface caused by the tremors of the ground was so great that no image of the star could be seen for many minutes during the passing of the trains. This was a fatal objection, since similar observations may have to be taken at any moment of the night or day.

For those places near a public road the experiment was varied by causing a loaded wagon to be driven rapidly up and down. The experiments were always made at least twice to avoid errors, and only those places rejected which were plainly unsuitable on this account. No matter what might be their other advantages, if they did not stand this test they were useless for astronomical purposes.

The places just north of the city were rejected on account of the smoke always rising from the mass of chimneys, an artificial and constant fog. In this way the choice has been narrowed down to two places. One directly south of the great park of the Soldiers' Home and one in Georgetown. The first is so situated that to make it suitable for observatory purposes a very large quantity of land would have to be bought; the second place can be bought with the appropriation. The matter is in this condition at present. No choice has been made by the commission as yet. There is, of course, a great desire on the part of landowners to force the commission to buy land in their neighborhood, but the choice must finally be made on the principles heretofore adopted. The new Observatory is to stand for a century at least and no small and petty personal considerations should be allowed to enter.

THE PRACTICAL VALUE OF SCIENCE.

"I have endeavored to state the higher and more abstract arguments by which the study of physical science may be shown to be indispensable to the complete training of the human mind, but I do not wish it to be supposed that because I may be devoted to more or less abstract and unpractical pursuits I am insensible to the weight which ought to be attached to that which has been said to be the English conception of Paradise—namely, 'getting on.' Now the value of a knowledge of physical science as a means of getting on, is indubitable. There are hardly any of our trades, except the merely huckstering ones, in which some knowledge of science may not be directly profitable to the pursuer of that occupation. An Industry attains higher stages of its development as its processes become more complicated and refined, and the sciences are dragged in, one by one, to take their share in the fray."—*Huxley.*