immediate vicinity, with the exception of some of the paleolithic implements, and even these were found within an extreme radius of four miles. Second, the gatherings in this limited region have been so long continued and so thorough, that the result is a collection which shows *en masse* the work of the peoples who inhabited the Delaware valley at different periods, in a manner and to an extent never before obtained from any part of this country, and probably not from any other part of the world. Third, the collection is the same which formed the basis of Dr. Abbott's volume on 'Primitive industry,' and has been arranged by Dr. Abbott himself, under the direct supervision of the curator.

As now arranged, the Abbott collection exhibits at one and the same time the sequence of peoples in the valley of the Delaware, from paleolithic man through the intermediate period, to the recent Indians, and the numerical proportion of the many forms of their implements, each in its time. It thus forms an exhibition at once instructive to the general visitor, and of great importance to the serious student. It is indeed doubtful whether any similar collection exists, where a student can gather so much information at sight, as here, where the natural pebbles from the gravel begin the series, and the beautifully chipped points of chert, jasper, and quartz, terminate it in one direction, and the polished celts and grooved stone axes in the other.

The paleolithic implements from the gravel and from the talus include nearly all found, some of them coming from a depth of thirty feet in the gravel; with one exception, a black flint, they are made of a hard, fine-grained argillite; many are but slightly chipped, while others are of well-defined forms, similar to the paleoliths of the old world. With these specimens are the human skull, under jaw, and wisdom-tooth, found at different times in the same gravel as the implements.

Following the paleoliths are the several thousand rude and greatly weathered points and flakes of argillite of various forms. The relative importance of the different sorts to the people who used them is shown in an instructive way by grouping and heaping, so that the eye at once takes cognizance of this, while it detects at the same time the individuality of the makers. These points belong to the middle period of occupation of the valley; never found in the gravel, they are, as a whole, much older than the mere surface specimens and those from graves.

To these latter, the work of the recent Delaware Indians, belong the rude scrapers made by simply splitting a pebble, the rudely chipped agricultural implements of several kinds of stone, and the chipped scrapers, many of which are beautiful illustrations of this kind of work. These, like the arrow-heads, knives, and large spear-like implements shown in an adjoining case, are made from jasper of different colors, as well as from chert and quartz, and are shown in great variety and number. Of the other forms of implements, also illustrated by many varieties of each, are the hammer-stones, rubbing and polishing stones, pitted stones, mortars and pestles, celts and axes.

The ornamental stones are of various shapes, some of them simply perforated; the so-called gorgets are in various stages of manufacture, and there are several carvings representing human heads. A few pipes cut out of stone illustrate the Delaware type of tobacco pipe, while numerous fragments of pottery show that they were also made of clay. The potsherds exhibit a considerable variety of ornamentation, principally by incised lines, though many are cord-marked, and others have impressed designs. Two spear-heads of hammered native copper and a little group of miscellaneous objects are exhibited separately.

Another group of specimens, not included in the enumeration given above, though by no means an unimportant part of the exhibit, are the chips and refuse material of an Indian workshop. This large mass was sifted from the dirt in a single spot a few feet in diameter, evidently from where some Indian long worked in fashioning various implements. In the mass are thousands of chips of stones of various kinds, broken specimens, failures, hammer-stones, and nodules of jasper brought to the place, but still unwrought.

The collection and its arrangement are invaluable, unique, and of extreme importance to all who wish to study the stone age of our Atlantic coast. It reflects great credit upon the industry and sharp-sightedness of the collector, and exhibits as well the same perspicacity and serious method that is a marked feature of the entire museum. The problem of the exhibition of archeological objects, so that they may themselves give the most significant and instructive lessons, without reflecting transitory theories, has found an excellent solution at Cambridge.

FIRST LESSONS IN PHILOSOPHY.

PROFESSOR DE MORGAN, in his wonderfully witty 'Budget of paradoxes,' speaking of the dislike of most people to discriminate beyond a certain point, says, that, for the majority, "all such things as distinctions are evasions, subterfuges, come-offs, loop-holes, etc. They would hang a

First lessons in philosophy, being an introduction to metaphysic and logic for beginners. By M. S. HANDLEY. New York, *Scribner & Welford*, 1883. 16°.

man for horse-stealing under a statute for sheep-stealing, and would laugh at you if you quibbled about the distinction between a horse and a sheep." This certainly is most solemnly true, and is, among other things, the reason why people, as a rule, care so little for philosophy, the vital air of which is the persistent making of distinctions long after the saturation-point of the average human intellect has been reached. We all have our philosophies, to be sure, such as they are; but we all refuse to discuss them in the light of distinctions finer than our own. Such distinctions are 'cobwebs,' 'hair-splittings,' and the like; and we blankly ignore them with a perfectly good conscience. This is why no amount of criticism, however truly able, will shake the hold which certain popular philosophies have on 'the gallery;' for there is a gallery in philosophy, as in livelier spectacles. Mr. Shadworth Hodgson is certainly, of all English-writing philosophers, the one who makes the largest and most incessant demands on his reader's ability to take a distinction. He distinguishes after most of us long for rest, and he probably seems, in consequence, to the majority of those who open his pages, over-subtle and unreal, in spite of the extraordinary originality and vigor of every thing he writes. Many, to our knowledge, have wished that some disciple would come and issue his thoughts in the shape of small change, since they seem so little likely to become popular in the master's own massive statements. Miss Handley has essayed this useful task in the thin volume before us, which we recommend to all who would like a glimpse into some of the main features of Hodgson's system, but by no means to those to whom the title 'First lessons in philosophy' suggests a text-book for high-school use. The work is gracefully written in dialogue-form; but the contents are too technical to be touched upon in our space. We must confess, that, after one reading, we are still in some doubt as to whether Miss Handley's pages have brought Mr. Hodgson within range of those for whom his own are too abstruse.

NOTES AND NEWS.

A TELEGRAM from Dr. Swift, dated Dec. 27, announces the discovery of a comparatively bright telescopic comet, by Mr. W. R. Brooks, at Phelps, N.Y., an easterly motion being 'strongly suspected.' The discovery is confirmed by an observation at Harvard on Dec. 28. The comet is circular, about 3′ in diameter, equivalent in brightness to a star of the ninth magnitude, and it has a strong, eccentrically placed condensation, but no tail. The position given by Professor Pickering for Dec. 28.4684, Greenwich mean time, is, R. A. $19^h\ 59^m\ 27^s$; Dec. $+ 4°\ 31'\ 34''$; so that the comet would now set, in this latitude, about three hours after the sun.

— 'Short studies from nature' (New York, *Cassell*, 1885) is one of many books intended to interest general readers in the later scientific discoveries. Six of the ten chapters treat of zoölogical subjects, bats, dragon-flies, oak-apples, birds of passage, glow-worms, and Foraminifera. They are generally well written, and contain much that is interesting in a readable form. They treat mainly or entirely of English animals; but in most cases the notes and description would apply equally well, with a change of specific name, to our American representatives, and be equally interesting to our American readers. There are also chemical and astronomical chapters, and one on caves.

— Any book which will draw the attention of young or old to the habits of common animals deserves all encouragement. We have a few such already; but any one who has examined other books of this class will find, on comparison, that Holder's work ('Marvels of animal life,' *Scribner*, 1885), while compact, has a wider scope, and contains a large amount of fresh material. Very many of the animals described are not members of our fauna; but there are enough familiar forms described to encourage us to study the habits of more of our common animals, and to hint of the possibility of interesting discoveries awaiting patient observers. The fact that the writer has been an eye-witness of most which he describes, makes his work entirely different from the mere compilations of which most similar books are composed, and makes one almost forget while reading that he is not himself an eye-witness. The writer's style is fresh and attractive. It will surprise some readers to see man and the Pteranodon represented on plate xxxi. as contemporaneous. Possibly, however, the supposed human figure may not be that of a man: it might easily be almost any thing else. The plates, unfortunately, never accompany the description, but are the reward of patient search.

— The prize of 500 francs left by M. A. P. de Candolle is offered by the Société physique et d'histoire naturelle, of Geneva, for the best unpublished monograph on a class or family of plants; the essays written in any of the four great European languages or Latin, to be sent in on Oct. 1, 1889.

— A catalogue of the printed maps, plans, and charts in the British museum has been prepared by Professor Douglas, and will be issued in two large volumes.