

CIRCULAR.

OBERLIN COLLEGE, O.

DEAR SIR—

Allow me, by this Circular, to present to you the claims of the Cabinet of Natural History in Oberlin College.

The great importance, to every Institution of learning, of an extensive and well-arranged collection of objects illustrating the Mineralogy, Geology, Botany, Zoology, &c., of the country, and so far as possible, also, of foreign countries, is freely admitted by every enlightened friend of public education. Indeed, in these and kindred departments of knowledge, there is a steadily increasing demand for instruction — a demand which imposes upon Literary Institutions an obligation to furnish ample facilities for their successful prosecution.

The Cabinet in Oberlin College, like those of most newly established Institutions, is at present very limited, and quite inadequate to its growing necessities. The College, moreover, is without funds to make the requisite purchases in this department. We do, therefore, the more confidently solicit the aid of its friends, its alumni and former pupils in particular, and of the cultivators and patrons of science generally, in accomplishing the desired object, by contributions either of specimens themselves, or of funds necessary to their procurement.

We invite special attention to the following suggestion: *With a little exertion from time to time, or occasionally, perhaps, at a trifling expense, individuals may obtain in their own immediate neighborhood, or in their travels abroad, and as opportunity presents forward to us many objects of real value in a general collection, and often indeed specimens of great scientific interest.*

A generous response on the part of our numerous friends, many of whom occupy localities specially favorable for making collections, and particularly of those who may reside or travel in foreign lands, or in remote portions of our own country, would confer upon the Institution an immense and permanent benefit. As a guide to those who may be disposed thus to contribute their efforts as collectors, or to donate specimens in their possession, we have appended on another page specifications of certain classes of objects that would prove more particularly acceptable for our Cabinet, or available as duplicates in effecting exchanges; together with brief suggestions in regard to their proper selection, mode of preservation and safe package.

All packages should be directed to the subscriber, at Oberlin, O. They may generally, perhaps, be forwarded by private opportunities, and without expense to the College. In such cases the donor's name should be enclosed; and if the articles are of considerable value, notice should be given to us through the mail. Packages of little weight may themselves occasionally be sent by mail; the postage being pre-paid. But should no suitable opportunities of the kind present themselves, contributors are respectfully requested to inform us by letter of the character of the specimens which it is proposed to send, and to await special directions before forwarding them at our expense.

N. B. Specimens sent, of whatever kind, should be accompanied with labels giving their precise locality, and any other information deemed interesting or important. They should be wrapped in separate envelopes, and securely packed for transportation.

All specimens of suitable character and value will be placed in the College Cabinet, and properly labelled with the donor's name annexed.

Funds contributed for this department may be sent either to the subscriber, or to the College Treasurer, Hamilton Hill, Esq. They will be duly acknowledged, and faithfully applied to the object.

Exchanges with collectors are respectfully solicited.

Permit us to hope that the above statements and suggestions will obtain your favorable consideration.

Very respectfully yours,

GEO. N. ALLEN,
Prof. Nat. Hist. in Oberlin College.

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SPECIFICATIONS.

1. MINERALOGICAL.—Good specimens of minerals of every class are earnestly solicited. The common varieties, such as lime, quartz, gypsum, &c., should rarely be sent except when distinctly crystalized, or in peculiar forms; but the rarer species, and all metals and metallic ores, may be sent in whatever form they occur. When large and fine, or otherwise of peculiar beauty, the number of specimens can hardly be too great.

2. GEOLOGICAL.—Specimens of common rock of every description; as granites, slates, sandstones, limestones, traps, &c. These should be fresh from the quarry or ledge, and not weatherworn; and when practicable, in rectangular blocks of about 3 by 4 inches in surface extent, and 1 inch in thickness. Also, and especially, specimens of marble, coal, plaster, peat, marl, soils, tufa, (from incrusting springs,) stalactites, (usually from caverns,) septaria, (spherical or flattened masses, generally of concretionary structure, and crossed with veins,) géodes, (similarly shaped masses, but hollow and lined with crystals,) &c., &c.

3. PALÆONTOLOGICAL.—Specimens of fossil remains of every kind; as, for example, the petrifications and impressions of the roots, stems, leaves and fruit of plants; petrified shells and corals, (some of the former have been vulgarly called rams' horns and rattlesnakes, while certain of the latter have been denominated calves' horns and honeycombs;) trilobites, (extinct crustaceous animals of great interest;) crinoids, (stone lilies, or stemmed starfishes, the joints of whose stems when in separate plates have a wheel-like form and appearance, and the heads of which, being rarely found, are very highly prized;) and particularly the bones, teeth and other remains of vertebrated animals, as fishes, reptiles, and the extinct colossal mammoth, mastodon &c. This latter class of organic remains, viz., the vertebrate, are of peculiar interest and value in a palæontological collection, and we trust that our friends will take special pains, when possible, to secure such for us.

Great caution is requisite, not unfrequently, in extracting fossils from the enclosing rock. Should a fine specimen by accident become broken, the pieces must be accurately united with strong glue as soon as practicable. If disposed to crumble, a coating of transparent glue, gum arabic, or varnish will often preserve it.

4. ZOOLOGICAL.—(a.) Mammals of every kind not domesticated with us. The smaller varieties, as bats, moles, gophers, &c., may be skinned as directed below, or, if more convenient, preserved entire in alcoholic spirits.* Those of large size, as squirrels, weasels, badgers, &c., must be skinned; the feet, leg-bones and skull being allowed to remain attached. In the process of skinning the principal incision should extend along the abdomen usually as far as the breast, and the skin, after detaching the limbs (at the thigh joint,) and tail from the body should be inverted over the neck and head; the operation being continued until the eyes and fleshy portions of the cheek are exposed and removed. The head should next be separated from the trunk, the tongue withdrawn, and a segment of the skull at its base, sufficient to abstract the brain, removed with a knife or saw. When the skull, leg-bones, &c., have thus been freed from their fleshy investments and contents, they, together with the entire interior surface of the skin, must be subjected to a thorough application of arsenic;† after which the cerebral and orbital cavities should be stuffed with cotton or tow, and the skin reverted to its original position. A little stuffing, (of the same material,) may also be introduced between the leg-bones and their investing skin, and particularly about the cheeks and adjacent parts of the head, in order to preserve its exact shape. And lastly, the mouth should be closed, (in carnivorous animals and rodents, the mouth may sometimes be left partially open, that the teeth may be exposed,) and the eyelids made to assume the natural, open position opposite their respective orbits. The whole should then be left to dry thoroughly before folding and packing.‡

In the larger quadrupeds, as foxes, wolves, bears, deer, seals, &c., the feet only may be allowed to remain attached to the skin. The skull, however, should be preserved and sent separately, with a suitable label.

The skeletons, and especially the skulls of the larger and rarer quadrupeds, independent of their skins, would be highly prized.

(b.) Birds; local, or rare indigenous species, as the prairie hen, the burrowing owl, eagles, &c., and particularly all foreign species. They should be skinned and preserved as directed above for mammals; except that more care is requisite to keep the feathers unruffled and unsoiled, and that the neck and body should in addition be temporarily stuffed with cotton, (without stitching the skin,) in order to the better protection of the feathers in transportation.

(c.) Reptiles, as serpents, frogs, lizards, &c., can generally be preserved in spirits. Turtles, alligators, and the larger kinds of serpents, tortoises, &c., should be skinned and the pre-servative applied as above directed.

(d.) Fishes, molluscs, &c.,—the same general direction as for reptiles.

When several specimens from different localities are enclosed in the same jar, can, or cask of spirits, they should bear separate labels, written with a hard pencil upon card-paper, or with ink upon leather, parchment, or pasteboard.

* Alcohol, nearly pure, is the best.

† White arsenic of the shops, (arsenious acid.) It may be applied either dry as a powder, or moistened with alcohol or water, and spread with a brush. It is a deadly poison, and if kept on hand should be carefully protected and distinctly labelled as such. Common salt or brine will preserve skins for a short period.

‡ The above directions, thus briefly given, will, it is hoped, enable most persons with a little practice, at least, properly to skin and preserve all ordinary specimens until they can be conveniently forwarded. Their final preparation and mounting require more extended instruction and experience; it is the work of the Taxidermist.

In selecting specimens of animals, birds, &c. for preservation, it is desirable to secure, if possible, those of average size, and in the best condition as to fur, plumage &c. When practicable both sexes should be represented, and even the young as well as those of adult age.

5. ENTOMOLOGICAL.—Although properly embraced under the preceding head, yet we prefer to give prominence to this class of invertebrates, and would earnestly solicit collections of insects of every description and country, especially if rare, large, or brilliant. When dead and properly adjusted as to their antennae, legs and wings, they may be placed between layers of cotton in paper, or wooden boxes, (cigar boxes are excellent,) and forwarded at leisure. Butterflies, moths, and dragon-flies should be dried with their wings horizontally extended. If alive, insects may readily be suffocated under a tumbler or other vessel by the burning of sulphur matches. Beetles, and all insects not having the delicate wings of the butterfly, may be more easily killed by immersion in spirits. They may, if preferred, be preserved and sent thus in jars and phials; and especially so, if collected in tropical climates. Most of the objects spoken of under this and the following heads should receive special attention in packing. The more delicate and fragile must be surrounded with cotton and placed in flat boxes, and in single layers.

6. CONCHOLOGICAL.—Marine, fluviatile and terrestrial shells of every class and in large quantities, are very much desired. Foreign species would be particularly acceptable; but all the varieties, and especially the rarer species of our indigenous fresh-water bivalves, (*naiadae*,) of our water snails, (*limniadae*, &c.,) and our land snails, (*heliciadae*, &c.,) are included. They should not be broken, bleached, or water-worn, but unless very rare, should be of their natural form and color as from living specimens. When taken alive, the animal may easily be removed from the shell with a knife or small hook, after immersion for a minute or two in boiling water.

Sea urchins, starfishes, corals, &c., may be mentioned in this connection, although not strictly belonging to this class.

7. BOTANICAL.—Specimens of plants, whether exotics or indigenous, if properly preserved and accurately designated.

8. ETHNOLOGICAL.—Specimens of the dress, armor, furniture, implements of husbandry and the chase, ornaments, and particularly objects of superstitious regard, as idols, grecoes, &c., whether belonging to the aborigines of this continent; or to the people of other countries, are always highly interesting and instructive, and would be greatly prized by us.

Specimens illustrating the craniology, &c., of the different races of men would be very acceptable.

We are especially desirous of obtaining an extensive collection of ancient Indian relics; such as stone hatchets, arrows, knives, pestles, gorgets, copper rings and other ornaments, specimens of pottery, &c.

Other classes of objects that are antique or curious, as coins, maps, manuscripts, engravings, &c., would be most welcome.

N. B. UNIVERSAL RULES. 1. *Label every specimen on the spot where collected, or at least while the locality is fresh in the memory.*

2. *Envelope each specimen in paper or cotton, sufficient to prevent injury by friction.*