

4. That no general appeal to the public for funds is required, as each institution will endeavor to secure the amount necessary for its work.

5. That the work already planned includes observations of contacts, photography of the corona with large and small cameras; visual and photographic observations of the spectrum of the sun's limb and of the corona; visual examination of the details of the coronal structure; measurement of the brightness of the sky at different distances from the sun; search for an intra-mercurial planet; and observations of the shadow bands.

A preliminary report on the weather conditions along the line of totality has been prepared by the Weather Bureau, at the request of the committee. From this it appears that interior stations are probably to be preferred to those on the seacoast, in spite of the shorter duration of the total phase. The full report of the Weather Bureau, which will soon be published, will contain much valuable matter, including maps of the eclipse track, showing location of towns and railways; information regarding hotel accommodations, desirable sites, etc.

It is understood that the Naval Observatory will issue instructions to observers, and that a map of the eclipse track will be published by the Nautical Almanac Office. The Treasury Department has made arrangements by which the instruments of foreign parties will be admitted free of duty.

The committee, if authorized by the conference to continue its work, will be glad to receive and publish further information from eclipse parties regarding their plan of observations and location of stations.

Extracts from the replies of various astronomers were appended to the report, but need not be reproduced here, as they have been published in the *Astrophysical Journal*. The committee was continued in office.

The committee appointed at the Second

Conference to act in reference to the questions at issue regarding the United States Naval Observatory also reported that the opinions of astronomers regarding that institution, which had been obtained in response to a circular letter, had been communicated to the Secretary of the Navy. This report is not reproduced here, as it is practically superseded by the official report of a Board of Visitors appointed by the Secretary of the Navy to visit, examine and report upon the Naval Observatory. The recommendations of this official report have been given in full in *SCIENCE*.

The first meeting of the Astronomical and Astrophysical Society of America adjourned at noon, September 8th.

EDWIN B. FROST,

Acting Secretary.

YERKES OBSERVATORY, WILLIAMS BAY, WIS.

AMERICAN ORNITHOLOGISTS' UNION.

THE Seventeenth Congress of the American Ornithologists' Union convened in Philadelphia, on Monday evening, November 13th. The business meeting was held in the Council Room, and the public sessions, commencing Tuesday, November 14th, and lasting three days, were held in the Lecture Hall of the Academy of Natural Sciences.

Robert Ridgway, of Washington, D. C., was reëlected President; Dr. C. Hart Merriam, of Washington, D. C., and Charles B. Cory, of Boston, Vice-Presidents; John H. Sage, of Portland, Conn., Secretary; and William Dutcher, of New York City, Treasurer. Charles F. Batchelder, Frank M. Chapman, Ruthven Deane, Witmer Stone, Drs. A. K. Fisher, Jonathan Dwight, Jr., and Thos. S. Roberts, were elected members of the Council. By a provision of the by-laws, the ex-Presidents of the Union, Drs. J. A. Allen and Elliott Coues, and Messrs. William Brewster and D. G. Elliot, are *ex-officio* members of the Council.

Two corresponding and eighty-five associate members were elected.

Miss Juliette A. Owen, of St. Joseph, Mo., an associate member, donated \$100 to the Union 'to be devoted to any ornithological purpose that might seem fitting to the Council.' Miss Owen wrote that the amount sent was about the cost of the journey she expected to take in order to attend the Congress, but was prevented from going. The sum received will be the nucleus of a fund which it is hoped may be secured, the income to be spent for the advancement of the science of ornithology.

An honored visitor to the daily sessions was Dr. Samuel W. Woodhouse, of Philadelphia, after whom Prof. Baird named the Woodhouse's Jay (*Aphelocoma woodhouseii*) more than forty years ago. Dr. Woodhouse is in most excellent health and still interested in scientific work.

Mr. Louis Agassiz Fuertes exhibited and explained a series of field sketches made by him in Alaska the past season. They showed the true life colors of the soft parts, mostly in the breeding season.

By courtesy of Miss Lucy H. Baird, Mr. Witmer Stone was able to compile and read the letters of John J. Audubon to the late Spencer F. Baird, then of Carlisle, Pa. These covered the period from the reply to the inquiry of the lad Baird concerning the identity of a flycatcher until after the return of Audubon from the Missouri river in 1843. The letters are of great historic interest and show the warm feeling of the older naturalist toward his young friend and companion.

Wednesday afternoon was devoted to papers illustrated with lantern slides. The following papers were read :

'An Account of the Nesting of Franklin's Gull (*Larus franklinii*) in Southern Minnesota': Dr. Thos. S. Roberts ; 'Bird Studies with a Camera': Frank M. Chapman ; 'Home Life of Some Birds': Wm. Dutcher.

'The Effects of Wear upon Feathers,' Dr. Jonathan Dwight, Jr. ; 'Slides—Series of Kingfisher, Gulls, etc.': Wm. L. Baily.

In a pleasing conversational way Dr. A. K. Fisher told of the more interesting birds found by the recent Harriman Alaskan Expedition. The notes of the birds referred to were imitated by Mr. Fuertes, also a member of the Harriman party.

The report of the Committee on Protection of North American Birds, read by its Chairman, Mr. Witmer Stone, showed that an increased interest is taken at the present time in the preservation of wild bird life. Investigation proved that many of the birds now used in millinery were imported from countries where there are no bird laws. The committee had used its influence to prevent excessive collecting of eggs and skins for commercial purposes.

On Friday, November 17th, after adjournment of the Union, at the invitation of Mr. W. H. Wetherill, owner of the property, Mr. George Spencer Morris conducted a party to Mill Grove, on the Perkiomen, the former home of Audubon. Mrs. Morris F. Tyler, of New Haven, Conn., wife of the treasurer of Yale University, a granddaughter of Audubon, was one of the party.

The attendance of members at the Congress just closed was much larger than at any previous one. They came from distant parts of the United States, and from Canada.

Following is a list of the papers read at the sessions in addition to those already mentioned :

Notes on the Flammulated Screech Owls : Harry C. Oberholser ; Three Years' Migration Data on City Hall Tower, Philadelphia : William L. Baily ; A Quantitative Study of Variation in the Smaller American Shrikes : Reuben M. Strong ; Behring Sea Arctic Snowflake (*Passerina hyperborea*) on its Breeding Grounds : C. Hart Merriman ; On the Plumage of Certain Boreal Birds : Frank M. Chapman ; On the Perfected Plu-

mage of *Somateria spectabilis*: Arthur H. Norton; The Summer Molting Plumage of Eider Ducks: Witmer Stone; An Oregon Fish Hawk Colony: Vernon Bailey; The Sequence of Plumages and Molts in Certain Families of North American Birds: Jonathan Dwight, Jr.; The Ranges of *Hylocichla fuscescens* and *Hylocichla f. salicicola*: Reginald Heber Howe, Jr.; On the Occurrence of the Egyptian Goose, (*Chenolopea aegyptiaca*) in North America: Frank C. Kirkwood; Further Remarks on the Relationships of the Grackles of the Subgenus *Quiscalus*: Frank M. Chapman; A Peculiar Sparrow Hawk: William Palmer; The Requirements of a Faunal List: W. E. Clyde Todd; Language of the Birds: Nelson R. Wood; A New Wren from Alaska: Harry C. Oberholser; The Molt of the Flight-Feathers in various Orders of Birds: Witmer Stone; Some Cuban Birds: John W. Daniel, Jr.; On the Orientation of Birds: Captain Gabriel Reynaud, French army.

The next meeting will be held in Cambridge, Mass., commencing November 12, 1900.

JOHN H. SAGE,
Secretary.

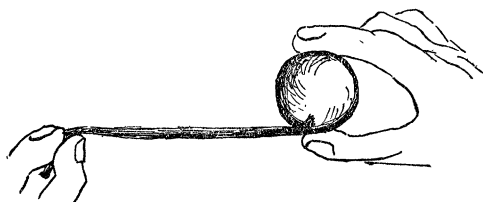
DEMONSTRATING THE CURVE OF THE BASE BALL IN THE LECTURE ROOM.

THE limited space in the lecture room, and the presence of one's audience makes a demonstration of curve pitching difficult even if one has the necessary skill. If the curve is to be made at all apparent in a limited space the ball must be exceedingly light, and the axial rotation very rapid.

I have found the ordinary oak-ball or oak-apple very suitable for this purpose. The rough surface gives the necessary friction, and the ball itself is as light as an egg shell and much stronger.

A strip of rubber band about 15 cms. long and 0.5 cm. wide is wound under tension around the ball (two or three turns are enough), and the ball 'catapulted' forward

by means of the remainder of the band as shown in the figure. The ball will rise,



drop, or curve to one side, according to the position in which it is held. A total deflection of 45° is easily obtained, and when pitching the rise (which is the case shown in the figure) the ball, starting in a horizontal direction, will sometimes ascend half way to the ceiling. This curve is the most striking of course, as the attraction of gravitation is overcome. It shows to the best advantage when thrown directly away from the observer, but this of course is difficult in the lecture hall.

These oak balls are also very suitable for showing the suspension of a ball in an air jet.

R. W. Wood.

THE ANNUAL REPORT OF THE SECRETARY OF AGRICULTURE.

THE report of the Secretary of Agriculture for 1899, just issued, shows that the Department has had a prosperous year and that the volume of its practical and administrative work has largely increased. At the same time there has been advancement in a number of lines of technical and scientific work.

The extension of the Weather Bureau service around the Caribbean Sea has been abundantly successful in noting the first indications of cyclones and forecasting their movements. Warnings of cold waves have been particularly successful during the past year. A climate and crop service has been successfully established in Cuba and Puerto Rico, and similar work in Alaska has been extended into the interior. The records of