application of knowledge must be indicated and directed. That perhaps brings us nearer to what may yet be the distinctive feature of our University. At all events we start with the belief that here we are going to combine theory with practice, and to see that in our University we shall combine both in one course of instruction, with due regard to the needs of our own time and of our own district. And now, if I may summarize in one sentence what I have been saying, it is that a university should be a place where knowledge is taught, tested, increased and applied.

PROFESSOR STARR'S RECENT WORK IN MEXICO.

WITH his last journey to Mexico, which extended over four months, Professor Frederick Starr brings the field-work of four years' study of Mexican Indians to a close. This study has had for its object the careful definition of the physical types of the tribes of southern Mexico. Three kinds of work were done—measurement, photography and modeling. In each tribe one hundred men and twenty-five women were measured, fourteen measurements being taken of each individual. Photographic portraits were taken of typical subjects, a front view and a straight profile being made of each. Busts in plaster were made of those who appeared most perfectly to present the racial type, the molds being made directly upon the subject. During the four seasons over which his work has extended Professor Starr has visited the following twenty-three tribes: Otomis, Tarascans, Thaxcalans, Aztecs, Mixtecs, Triquis, Zapotec-Mixtecs, Mixes, Tehuantepec Zapotecs, Juaves, Chontals, Cuicatecs, Chinantecs, Chochos, Mazatecs, Tepehuas, Totonacs, Huaxtecs, Mayas, Zoques, Tzendals, Tzotzils and Chols. While the physical types of the natives formed the chief subject of study, many views were also taken of the scenery, villages, houses, groups of Indians, native industries, etc., etc. The material results of the investigation include measurements from 2,850 persons, 1,200 or more negatives, varying in size from 8 x 10 inches to 4 x 5, 100 busts in plaster, and a large collection of objects—dress, weapons, implements and products—illustrating the ethnography of the region. Several months will be necessary for putting all this material into shape for exhibition and publication. The printed results of the study will comprise five volumes. Of these, two will be albums of plates, illustrating the people and the country, under the title 'The Indians of Southern Mexico,' two will be pamphlets, printed by the Davenport Academy of Natural Sciences, entitled 'Notes on the Ethnography of Southern Mexico,' the fifth will probably be issued as a bulletin of the Department of Anthropology by the University of Chicago, and will present the results of the anthropological measurements and observations under the name of 'The Physical Characters of the Indians of Southern Mexico.' The first volume of the 'Indians of Southern Mexico,' and part first of the 'Notes on the Ethnography of Southern Mexico' have already been published. The remaining three volumes will be printed as soon as possible. It may be added that this work of Professor Starr is the first of its kind undertaken in Mexico.

SCIENTIFIC NOTES AND NEWS.

DR. PATRICK MANSON, F.R.S., has been awarded the Stewart prize of the British Medical Association, for his researches in the pathology of tropical diseases, especially in regard to the malaria of man and to the life-history of the malarial parasite both in man and in the mosquito, and in recognition also of the stimulating influence which he has exerted for many years on the study of tropical diseases in the British Empire.

PROFESSOR KOCH was entertained at dinner on July 24, by the Royal Institute of Public Health and was presented with the Harben medal for 1901. The presentation was made by Dr. W. R. Smith, president of the Institute, who was in the chair.

The British Medical Journal states that among the honors to be paid to Professor Rudolf Virchow on the occasion of his eightieth birthday will be the foundation of a *Virchow Haus*, at Berlin, with objects similar to those of the *Hofmann Haus*, which serves as a club house, library, etc., for chemists.

THE Royal Society has elected Professor Franz von Leydig, of Bonn, a foreign member.

THE University of Basle has conferred the honorary degree of Ph.D. on Dr. Robert Billwiller, director of the Meteorological Institute of Bonn, and on Professor Alfred Wolfer, director of the Astronomical Observatory at Zurich.

WE learn from *Nature* that the French Société d'Encouragement pour l'Industrie nationale announces the following awards of prizes: Grand gold medal to the Chamber of Commerce of Lyons for the organization of the commercial mission to China; 2,000 francs to M. Horsin-Déon for his work on beet root sugar; 500 francs to M. R. Fosse for his works on β-dinaphthol, and the same amount to M. Marcel Guichard for his works on molybdenum; 1,000 francs to M. Triboudeau for his study of the Pas-de-Calais, and 1,000 francs each to MM. Faure and Thénard for memoirs on the utilization of waters in agriculture.

THE Council of the Royal Society has awarded the Mackinnon studentship to Mr. J. J. R. Macleod, M.B., demonstrator of physiology in the London Hospital Medical College, for the purpose of enabling him to carry out researches in pathological chemistry. The studentship is founded under a bequest to the Royal Society by the late Sir William Mackinnon, director general of the Medical Department of the Army, for the foundation and endowment of prizes or scholarships for the special purpose of furthering natural and physical science, and of furthering original research and investigation in pathology. There were fourteen applications for the studentship which is of the annual value of £150.

MR. H. N. WHITFORD has been appointed collaborator in the Bureau of Forestry, U. S. Department of Agriculture.

C. E. VAN ORSTRAND, of the Nautical Almanac Office, has been transferred to be assistant physical geologist in the U. S. Geological Survey.

GOVERNOR STONE, of Pennsylvania, has appointed Miss Myra L. Dock of Harrisburg a member of the State Forestry Commission.

PROFESSOR J. BEHRENS has been appointed director of the agricultural experiment station at Augustenberg, in Baden, and Dr. R. Meissner, of Geisenheim, director of the station for grape culture at Weinsberg, in Würtemberg.

MR. HARLAN I. SMITH, of the American Museum of Natural History, has returned from a trip through the lower peninsula of Michigan, where he made a survey of the recently discovered 'Hauptman Earthwork,' a few miles southwest of West Branch, Ogemaw County. Three camp sites were also discovered along Indian River in Cheboggan County.

DR. A. W. NIEWENHUIS, medical officer of the Dutch colonial army, is at present in San Francisco, after having spent several years in scientific exploration in Borneo.

DR. FELIPE CALDAS, the Brazilian bacteriologist, sailed on July 24, for Cuba, accompanied by Dr. Angel Bellinzaghi, his assistant. They will conduct experiments with the serum that Dr. Caldas discovered.

PROFESSOR HERBERT B. ADAMS, who was connected with the department of history of the Johns Hopkins University since the opening of the University in 1876, has died at the age of fifty-one years.

DR. P. CALVIN MENSCH, since 1894 professor of the biological and chemical sciences at Ursinus College, at Collegeville, Pa., died on July 30.

CHARLES MOHR, Ph.D., whose death at his home in Asheville, N. C. we announced last week, was for many years connected with the U. S. Department of Agriculture, as special agent of the Forestry Division, and with the Geological Survey of Alabama, as botanist. His most important works during the past ten years have been: A study for the Forestry Division of the long leaf pine, a monograph on which was recently published by the Department of Agriculture; The 'Plant Life of Alabama,' a systematic account of the flowering plants and ferns growing without cultivation in Alabama; and 'The Botanical Resources of Alabama,' being an account of the useful and noxious plants of the State. The 'Plant Life of Alabama' was prepared under the joint auspices

of the U. S. Department of Agriculture and the Geological Survey of Alabama, and is now in press and about ready for distribution as a Bulletin of the Botanical Division of the Department. It will also be published as a report of the Geological Survey of the State. The volume on the economic botany of the State was being prepared for the Geological Survey, and was only partly in manuscript. The death of Dr. Mohr before the completion of this report must be counted as a misfortune both to the State of Alabama and to science in general, since there is no one else so well qualified as Dr. Mohr to write upon this subject. The collections in the Museum of the University of Alabama, in great part brought together, arranged and installed by him, will remain as enduring monuments to his memory. These are: A collection of dried specimens of the flowering plants and ferns of Alabama representing some 2,500 species; a similar collection of the mosses, liverworts, lichens and fungi of the State, numbering some 1,000 species; a forestry collection, consisting of about 150 blocks in book form illustrating the native woods, and a collection in about 150 individual glass front cases, showing the foliage, flowers and fruits of the timber trees of the State.

THE British Medical Association held its sixty-ninth annual meeting at Cheltenham last week, under the presidency of Dr. G. B. Ferguson.

The Botanical Gazette states that, under a commission from the United States Government, Dr. H. von Schrenk, of the Shaw School of Botany at St. Louis, is to spend the summer in Europe, in an investigation of the problems connected with the decay of railroad ties on the principal roads, this work being done in connection with a series of investigations on the same subject which he is undertaking for the U. S. Department of Agriculture, in which the principal American railroads are cooperating.

As we learn from the same source, Dr. J. N. Rose left about June 20 for his third botanical trip to Mexico. He expects to go first to the City of Mexico, working out from this point as a base southward towards Acapulco and eastward toward Vera Cruz, probably ascending Mount Orizaba and Popocatepetl. The objects of his trips are to make a general botanical collection; to collect at type localities certain species of Humboldt, Galeotti, Schiede and other early collectors; and to acquire information in regard to the economic uses of Mexican plants, especially such as will supplement a second paper on the useful plants of Mexico which is now nearly completed.

THE examination for the position of assistant ethnologist in the Bureau of American Ethnology, recently announced in this journal, was passed creditably by Albert Ernest Jenks, Ph.D., of Madison, Wisconsin, and he has just been appointed to the position and assigned to work on the foods and other economic resources of the Amerind tribes about the Great Lakes.

WE are requested to state that the fossil vertebrates, to which we recently referred as having been collected under the auspices of the U. S. Geological Survey in the Triassic of Arizona were collected by Mr. Barnum Brown. They filled two boxes weighing nearly half a ton, and have been unpacked under the direction of Mr. F. A. Lucas, who will probably soon report as to their scientific value.

A CASE of the bubonic plague is at present on Swinburne Island, New York City, having been removed from a steamship that arrived in the port from Calcutta. The case was diagnosed by the quarantine laboratory and the diagnosis confirmed by the marine hospital service. The disease has not been exterminated in San Francisco and appears to be spreading at Capetown and in Egypt.

THE Liverpool School of Tropical Medicine will send another expedition, probably under the direction of Dr. Annett, to Sierra Leone. This is the seventh expedition sent by the school for the investigation of malaria.

THE British National Antarctic Expedition steamship *Discovery* left London on July 21. She will proceed to Spithead to complete her equipment and will stop at Cowes, where the King will bid good-bye to the members of the expedition.

A TELEGRAM from Reuter's Agency states that the St. Petersburg Academy of Science re-

ceived, on July 11, a telegram from the leader of the expedition which is shortly to bring to St. Petersburg the mammoth found in Siberia. The telegram, which is despatched from Yakutsk, reports that the expedition arrived at that place on June 14. It is proceeding by steamer up the river, and will then journey overland to Kolymsk, which is 3,000 versts off, and where it expects to arrive in two and a-half months. The mammoth found is unique of its kind. Its hair, skin and flesh are entirely preserved, and there are remains of undigested food in its stomach.

THE University of Montana biological collecting expedition has spent five weeks in the mountains of the State, and four weeks more are being devoted to the work of the station on Flathead lake. During the trip several peaks have been ascended in the Mission and Kootenai ranges, and new names have been given to a number of unnamed peaks. Dr. Henry C. Cowles, of the University of Chicago, with a party of about twenty students, will spend ten days at the station studying the botany of the region. The work of the station will close August 16, when the instructors will attend the Denver meeting of the American Association.

A REPORT of the Geological Survey on the operations of the Kowak River party in Alaska has been submitted by Mr. Mendenhall, the geologist in charge of the work. He says the party reached Dawson, Yukon Territory, on June 4. Mr. Reaburn, of the party, with three camp hands, immediately began to survey a line from Fort Yukon to the mouth of Dall River, approximately 150 miles. This region of the Yukon flats offered no geologic problems other than those involved in the history of a large area of fluvial silts.

THE Council of Birmingham University has agreed to subscribe to a working 'table' at the Port Erin (Isle of Man) biological station, under Professor Herdman, to be placed at the disposal of Professor Bridge, for the use of his senior students when studying marine organisms, one student to occupy it for a month or more at a time.

DURING the opening week of the Minnesota Seaside Station on the west coast of Vancouver Island, evening lectures were delivered as follows:

Professor Conway MacMillan, Univ. of Minn.: 'Waste in Nature.'

Mr. K. Yendo, Univ. of Tokio: 'Distribution of Algæ in Japan.'

Mr. Harold Lyon, Univ. of Minn.: 'Phylogeny of the Cotyledon.'

Professor Conway MacMillan, Univ. of Minn.: 'Laminariaceæ of the Straits of Fuca.'

Miss Eloise Butler, Central High School, Minneapolis: 'Collecting Seaweeds in Jamaica.'

Dr. Francis Ramaley, Univ. of Colorado: 'Distribution of Plants in Colorado.'

The new seaside station has had in attendance during its first season thirty students, most of whom have specialized in botany, but some zoological work has also been done.

PROFESSOR B. E. FERNOW, director of the New York State College of Forestry, Cornell University, and formerly chief of the U. S. Division of Forestry, gave a course of lectures at the University of Chicago, beginning June 24. He treated forestry in its botanical, practical and political aspects. The subjects were as follows:

'What is Forestry?' (Economic significance of forest resources and need for their management; definition of terms and historic development of the art of forestry.)

'The Forest as a Resource.' (Commercial value of forest products, extent of their use, relation to other industries, significance in the United States.)

'The Forest as a Condition.' (Forest influences claimed and observed on climate, water-flow, health.)

'How Trees grow.' (A chapter of biological dendrology: the development and life-history of the individual forest tree.)

'The Mathematics of Forest Growth.' (Accretion and its measurement; quantitative and qualitative wood production.)

'The Evolution of Forest Growth.' (Development of forest growths as organisms, ecologic relations.)

'Timber Physics.' (Characteristics, properties and uses of wood.)

'Principles of Silviculture.' (The art of planting, reproducing and improving forest growths.)

'Forest Exploitation and Forest Protection.' (Tending and harvesting the forest crop.)

'Business Aspects of Forest Management.' (Forest survey, forest regulation and forest finance.)

'Forest Policies of Foreign Nations.' (The relation of the state to forest resources and how it has evolved itself in Europe.)

'Forests and Forestry in the United States.' (A brief sketch of forest conditions in the United States, and history of the movement to establish forest management.)

THE following table, originally published in the Baltimore *Sun*, gives the maximum temperatures during the months of July in several different cities:

Day of Month.	Eastport.	Boston	New York.	Baltimore.	Atlanta.	Cincinnati.	Chicago.	St. Louis.	Kansas City.	St. Paul.
1	82°	92°	98°	103°	90°	96°	92°	100°	100°	82°
2	72	94	98	103	86	92	86	96	100	84
3	80	96	94	97	90	92	84	98	102	92
4	76	72	86	96	92	92	94	98	104	82
5	72	70	90	94	90	92	90	100	90	78
6	60	66	82	96	90	88	86	96	92	78
7	62	76	84	90	86	80	66	84	94	74
8	64	84	78	77	88	78	68	86	98	78
9	60	64	80	83	88	82	88	92	104	90
10	62	82	80	85	88	92	102	104	100	84
11	72	86	84	87	96	100	70	104	102	84
12	76	72	72	77	96	88	76	102	104	88
13	80	74	76	73	90	88	74	96	98	98
14	84	90	82	82	90	90	78	90	102	98
15	92	90	86	89	92	96	84	98	102	94
16	74	94	86	90	90	96	92	96	100	92
17	68	84	84	89	88	96	92	100	100	92
18	68	90	88	90	84	90	76	98	100	90
19	78	78	88	93	86	90	78	98	102	94
20	76	82	86	90	90	94	96	100	104	102
21	68	90	92	92	90	100	102	106	104	96
22	86	94	90	93	90	106	76	106	106	94
23	74	80	90	94	86	94	82	106	102	100
24	68	90	90	93	90	100	94	108	106	104
25	70	66	74	94	92	94	88	98	100	84
26	72	68	70	74	98	98	84	98	90	74
27	72	76	80	74	92	100	96	98	92	74
28	66	72	78	90	90	96	90	98	84	84
29	66	66	92	96	92	98	86	90	86	82
30	58	86	92	95	92	92	84	92	90	80
31	61	88	80	87	90	88	80	92	90	80

ON or about September 1, 1901, the Bird Club of Princeton University will publish its first *Bulletin*, edited by Mr. Wm. E. D. Scott, curator of ornithology, Princeton University. It will contain an annotated list of the birds of Princeton and vicinity, by William Arthur Babson, B.S., 1901. This list is the result of four years of scientific observation and study of the birds of Princeton. The *Bulletin* will contain about seventy or eighty pages, will be plainly bound in paper and will be sold for one dollar.

THE Regents of the University of Colorado have ordered the publication of an annual to be called the 'University of Colorado Studies.' It will contain papers from the various schools and departments—the result of experiment and investigation during the year. The first number will be issued soon.

THE council of the Institution of Electrical Engineers arranged a fortnight's visit of the members to Germany, where the leading installations and establishments connected with the science and practise of electricity were inspected. The party was divided into three sections, the first of which visited Berlin only, whilst the second visited Berlin and Dresden, and the third Nüremburg, Frankfurt-on-Maine, etc., in addition to the foregoing places.

THE work of the new anti-toxine laboratory of the N. Y. Department of Health, the establishment of which was provided for by the late Legislature, has begun. The scientific part of the work will be done in a part of the Bender Laboratory Building, Albany. Dr. H. D. Pease, of the Sheffield Scientific School, has been appointed director. An animal house is to be fitted up near the laboratory so as to secure the most perfect hygienic conditions attainable for such purposes. It will house about fifteen horses for the manufacture of serum. The laboratory will supply state institutions with diphtheria and other anti-toxines.

SURGEON GENERAL WYMAN, of the marine hospital service, has sent to the supervising architect of the treasury a request that plans be prepared for a laboratory for the marine hospital service. Congress, by the act approved March 3, 1901, appropriated $35,000 for the buildings. A two-story main building and an animal house will be erected. The basement of the main building will contain heating apparatus, storage room for fuel, incinerator and store rooms; the first story will have one office room, library, quarters for attendant, rooms for the study of rabies, special investigating room, disinfecting room of 1,000 cubic feet and a room for micro-photography, with a dark room. The second story will have two special laboratory rooms, one office, animal room and two laboratory rooms of large dimensions. The animal

building, to contain apartments for animals, will be one story high, with loft for storage of food supplies; the interior of the walls and the floors to be moisture proof and to have ample water and sewer connections. Both buildings are to be lighted with electricity.

THE London *Times* quotes from the *Journal* of the Board of Trade, a report from the locomotive superintendent of the Oudh and Rohilkhund Railway, on the working of ten American Baldwin engines supplied to that line last year. After describing the changes made in the engines to suit them to local requirements, and the chief defects which have shown themselves, the superintendent concludes: "Those ten engines have been working passenger trains, running at 30 to 35 miles an hour, and goods trains, running at 20 miles an hour, chiefly the former, and they have done their work well. They steam capitally and are remarkably good starters; they get away from a station with 55 loaded (wagons or coaches?), equal to about 1,300 tons, with the greatest ease. They are a little higher in coal consumption than our new B class. They are easily repaired, but repairs will have to be kept up, as, if not, they will go to pieces sooner than our other engines would. They do not, as far as I can see at present, cost more in repairs than other engines, and I am very satisfied with them." The cost of these engines, turned out complete, was Rs. 42,020 each, and the cost of the new B class engine, which is the engine used on the line for similar work, is Rs. 44,826.

UNIVERSITY AND EDUCATIONAL NEWS.

MESSRS. MCKIM, Mead and White have been commissioned to draw up general plans for the future buildings of the University of Cincinnati. The University has recently received $25,000 to be applied to its engineering shops and laboratories.

AT a meeting of the University Court of Glasgow University on July 11, it was announced that under the will of the late Mrs. M'Roberts, of Todhill, a sum of £10,000 had been bequeathed to the University for the purpose of founding and endowing a chair as the court may direct.

THE University of St. Andrews has received, by the will of the late Miss Malcolm, the sum of £4,000 for the establishment of medical scholarships.

WILLIAM STOKES WYMAN, LL.D., was elected President of the University of Alabama at the last meeting of the trustees in June, 1901. Dr. Wyman received his education at Harvard University and at the University of Alabama, and has for many years been connected with the latter institution as professor of Latin. He has served the University as president *pro tem.* on several occasions in the past, and his election to the presidency meets the hearty approval of all the alumni and friends of the institution.

AT the University of Cincinnati, Professor Charles H. Judd, recently of New York University, has been appointed professor of psychology and pedagogy. Messrs. J. E. Ives, H. C. Biddle, E. F. Alexander and Wm. Baur, have been appointed instructors in physics, and Mr. Wm. Osburn instructor in zoology.

DR. S. S. COLVIN, Ph.D. (Strasburg), has been appointed assistant professor of psychology in the University of Illinois.

RALPH S. LILLIE, who this year received the degree of Ph.D. in zoology at the University of Chicago, has been appointed assistant in physiology in the Harvard Medical School.

HANNAH B. CLARK, Ph.D. (Chicago), has been made assistant professor of sociology in the West Virginia University, at Morgantown, W. Va.

DR. G. BREDIG, docent in chemistry in the University of Leipzig, has been called to an associate professorship in the University of Heidelberg; Giovanni Ossunna, chief engineer of the firm of Siemens & Halske, has been called to a full professorship of electrical engineering in the Technical Institute at Munich.

DR. MORITZ VON RUDZKI has been promoted to a full professorship of mathematical geodesy and meteorology in the University at Cracow; Dr. Ludwig Tetmajer, professor in the Zurich Polytechnic Institute, has been appointed full professor of engineering in the Technical Institute at Vienna.