

years. Maximum cash bonus of \$5,000. Fellows: F. W. Bushong (senior fellow), Ph.D., former industrial fellow at University of Kansas; J. W. Humphreys (second fellow), A.M. University of Kansas.

15. *On the Chemistry of Gilsonite.*—\$750 a year for 1 year. Maximum cash consideration of \$2,000. Fellow: W. E. Vawter, A. B. University of Kansas.

16, 17, 18. *On the Chemical Treatment of Wood.*—\$3,900 a year. Owing to the remarkable progress of fellowship No. 10 during the first year, the donating company extended its value to \$3,900 a year and thus provided for the aid of two additional fellows. Fellows: L. V. Redman (senior fellow), Ph.D. University of Toronto; Frank P. Brock (second fellow), A.B. University of Kansas; Archie J. Weith (third fellow), A.B. University of Kansas.

Altogether, both at the University of Kansas and at the University of Pittsburgh, there

have been so far involved \$113,400 for direct expenditure in salaries in industrial research.

ROBERT KENNEDY DUNCAN

UNIVERSITY REGISTRATION STATISTICS

THE registration returns for November 1, 1911, of twenty-seven of the leading universities of the country will be found tabulated below. Seven institutions exhibit a decrease in the total enrollment (including the summer session) this year, viz., Chicago, Minnesota, Missouri, Nebraska, Northwestern, Texas and Yale, although in the case of Minnesota and Nebraska the apparent loss is due to a change of classification. The largest gains in terms of student units were registered by California (966), where the summer session showed an increase of 913 students, Columbia (527), Cornell (440) and

	Total Attendance, November 1, 1911	Attendance Summer Session, 1911	Grand Total	Deduct Summer Session Students who Returned in Fall	Net Total, November 1, 1911	Total, November 1, 1910	Total, November 1, 1908	Total,* November 1, 1903
California.....	4051	1964	6015	291	5724	4758	3751	3690
Chicago.....	2666	3248	5914	524	5390	5883	5114	4146
Columbia.....	5669	2973	8642	704	79 8	7411	5675	4557
Cornell.....	4889	1152	6041	432	5609	5169	4700	3438
Harvard (incl. Radcliffe)	4724	787	5511	85	5426	5329	5342	6013
Illinois.....	4570	647	5217	288	4929	4659	4400	3239
Indiana.....	1350	1068	2418	264	2154	2132	2113	1143
Iowa.....	1772	309	2081	114	1967	1957	2356	1260
Johns Hopkins.....	740	335	1075	18	1057	784	698	694
Kansas.....	2019	429	2448	183	2265	2246	2086	1319
Michigan.....	4783	1194	5977	525	5452	5339	5188	3926
Minnesota.....	4307	476	4783	235	4548 ²	4972	4607	3550
Missouri.....	2273	507	2780	184	2596	2678	2558	1540
Nebraska.....	2474	403	2877	144	2733 ³	3661	3154	2513
New York.....	3688	490	4178	123	4055	3947	3951	2177
Northwestern.....	3387	94	3481	43	3438	3543	3113	2740
Ohio State.....	3085	792	3877	310	3567	3181	2700	1710
Pennsylvania.....	4718	682	5400	180	5220	5187	4555	2644
Princeton.....	1543	—	1543	—	1543	1451	1314	1434
Stanford.....	1634	50	1684	36	1648	1648	1541	1370
Syracuse.....	3183	225	3408	101	3307	3248	3204	2207
Texas.....	1935	734	2669	130	2539	2597	1446	785
Tulane.....	1192	936	2128	88	2040	1985	1171	1037
Virginia.....	804	—	804	—	804	688	757	638
Western Reserve.....	1331	—	1331	—	1331	1274	1016	765
Wisconsin.....	3956	1536	5492	477	5015	4745	3876	3221
Yale.....	3224	—	3224	—	3224	3287	3466	2990

¹ In all faculties, excluding preparatory or extension department.

² These figures do *not* include the registration in the two branch schools of agriculture, nor in any of the short courses, some of which were included

in the previous years. The actual attendance this fall is practically identical with that of 1910.

³ Certain classes of students counted in previous years must have been omitted in the total for 1911, since the institution reports a gain over last year.

Ohio State (386). Last year there were seven institutions that showed a gain of over three hundred students, California and Columbia being among the number. Omitting the summer session attendance, the largest gains have been made by Cornell (307), Ohio (282), Illinois (241), Columbia (223), Michigan (132), New York University (118) and Virginia (116). It will thus be seen that this year only four institutions exhibit an increase of over two hundred students in the fall attendance, as against seven in 1910 and eleven in 1909.

According to the figures for 1910, the twenty-seven universities included in the table ranked as follows: Columbia, Chicago, Michigan, Harvard, Pennsylvania, Cornell, Minnesota, California, Wisconsin, Illinois, New York University, Nebraska, Northwestern, Yale, Syracuse, Ohio State, Missouri, Texas, Kansas, Indiana, Tulane, Iowa, Stanford, Princeton, Western Reserve, Johns Hopkins, Virginia. Comparing this with the order for 1911, and leaving Minnesota and Nebraska out of consideration, we find that Columbia continues to maintain its long lead, that California has passed from the eighth to the second place, that Cornell has passed from the sixth to the third place, that Michigan and Harvard have each dropped down one place, Pennsylvania two places, and Chicago four, and that Wisconsin and Illinois have advanced a place owing to the change in the Minnesota figures. The balance of the institutions now rank in the following order: New York University, Ohio State, Northwestern, Syracuse, Yale, Nebraska, Missouri, Texas, Kansas, Indiana, Tulane, Iowa, Stanford, Princeton, Western Reserve, Johns Hopkins, Virginia. California is the seventh and Wisconsin the eighth institution to pass the five thousand mark. If the summer session enrollment be omitted, the universities in the table rank in size as follows: Columbia, Cornell, Michigan, Harvard, Pennsylvania, Illinois, Minnesota, California, Wisconsin, New York University, Northwestern, Yale, Syracuse, Ohio State, Chicago, Nebraska, Missouri, Kansas, Texas,

Iowa, Stanford, Princeton, Indiana, Western Reserve, Tulane, Virginia and Johns Hopkins, the order of the first ten institutions last year on this basis being Columbia, Minnesota, Michigan, Pennsylvania, Harvard, Cornell, Illinois, California, Wisconsin, New York University.

The detailed statistics by faculties will hereafter be given in the spring, in order that the final figures for the year may be provided instead of the preliminary registration only. The number of students entering in the second term at the larger institutions is growing constantly, and as a result the final enrollment frequently shows a considerable increase over that of November first. The changes in attendance, equipment, etc., will also be submitted at that time.

The fall enrollment at a number of prominent colleges (for men and for women) and schools of technology is given in the following table:

Institution November 1	1911	1910	1904
Amherst.....	464	502	412
Brown (incl. graduate school)...	933	930	988
Bryn Mawr (incl. graduate school).....	440	409	441
Dartmouth (incl. eng., med., grad., stud., and commerce)...	1,385	1,229	926
Haverford.....	164	150	146
Lehigh	599	616	609
Massachusetts Institute of Technology.....	1,610	1,506	1,561
Mount Holyoke.....	771	743	674
Purdue	1,762	1,611	1,359
Smith	1,508	1,618	1,067
Wellesley	1,433	1,378	1,050
Wesleyan	395	365	305
Williams.....	533	541	443

RUDOLF TOMBO, JR.

COLUMBIA UNIVERSITY

SCIENTIFIC NOTES AND NEWS

PROFESSOR EDWARD C. PICKERING, director of the Harvard College Observatory, has been elected president of the American Association for the Advancement of Science, to preside at the meeting to be held at Cleveland, Ohio, beginning on December 30, 1912.

PROFESSOR E. L. THORNDIKE, of Teachers College, Columbia University, was elected