cost of $300,000 and now almost completed, was dedicated on October 3. The laboratory is named for the first professor of chemistry at the college.

DR. HENRY PAGE, dean of the school of medicine at the University of Cincinnati, has resigned.

AT Harvard University Dr. Frank H. Lahey, professor of clinical surgery, and Dr. Roger I. Lee, Henry K. Oliver professor of hygiene, have resigned.

DR. LEE PAUL SIEG, professor of physics at the State University of Iowa, has been appointed head of the department of physics at the University of Pittsburgh, in the place of Dr. Jay H. Clo, who has resigned to accept a research position with the J. E. Shrader Company, of New York. Dr. Richard Hamer, of the University of Wisconsin, and Dr. W. N. St. Peter, of the University of Michigan, have been appointed assistant professors in the same department.

DR. G. A. TALBERT, formerly associate professor of physiology at the University of Nebraska Medical School, has become professor of physiology at the University of North Dakota.

DR. CARL OTTO, of the University of Cincinnati, has been appointed assistant professor of chemistry at the University of Maine.

DR. H. N. CALDERWOOD, JR., of the United States Forest Products Laboratory in Madison, has been appointed assistant professor of chemistry at the University of Wisconsin.

DR. M. J. ZIGLER has been elected assistant professor of psychology at Wellesley College.

ASSISTANT PROFESSOR W. L. G. WILLIAMS, of Cornell University, has been appointed assistant professor of mathematics at McGill University.

DR. ARCHIBALD YOUNG, professor of surgery and dean of the Anderson College of Medicine, Glasgow, has been appointed Regius professor of surgery in the University of Glasgow, in succession to the late Sir William Macewen.

DR. MAX V. GRUBER, professor of hygiene and bacteriology at the University of Munich, has resigned, and Professor Paul Uhlenhuth, of the University of Freiburg, has been appointed to take his place.

DISCUSSION AND CORRESPONDENCE

AN UNPUBLISHED METRICAL EPIGRAM BY JAMES RUSSELL LOWELL

DURING the "renaissance of New England," Jeffries Wyman, Harvard's gifted anatomist, enjoyed the friendship of famous *literati*. Among his papers there is a battered photograph of bones, on which he had written—"From Prof. J. R. Lowell." Professor Lowell had doubtless felt able to part with it, but first inscribed on it elegiac couplets in German script, suggested by the picture, and of interest to its recipient. The photograph was issued by Hermann Kron, of Dresden, and shows, against a draped background, a well-posed skeleton of a powerful lion; a human skull, on the floor beneath the lion, marks the proportions of a puny race.

These are the verses which Lowell wrote:

Mäste dein Vieh in geeigneter Art mit erleuchtendem Phosphor—
Weiser als Moleschott wirds, triffst du das richtige Mass.
Giebst du zu wenig, so folget der Fluch entsetzlicher Dummheit,
Aber ein Gran zu viel—! Siehe dies Löwenscelett!!![1]

The reference is to the celebrated physiological chemist, Jacob Moleschott (1822–1893), who concluded the chapter on "peas, beans and lentils" in his *"Lehre der Nahrungsmittel—Für das Volk"* with some luckless and immortal comments. The brain can not exist without its phosphorus-containing fat, he said, which may be built up from the phosphorus in meat, bread and peas, or obtained preformed in fish and eggs. He rambles on:

> So it is jokingly remarked that a wise man has much phosphorus in his brain. No scientist would mean it seriously. For the composition of an organ suffers as much from excess as from deficiency . . . and therefore great thinkers avoid superfluous phosphorus. Yet it is true:—without phosphorus, no thought.[2]

William James disposes of the matter in his "Principles of Psychology,"[3] and introduces Agassiz, the friend of Wyman and Lowell, in this passage:

> "Ohne Phosphor, kein Gedanke" was a noted war-cry of the "materialists" during the excitement on that subject which filled Germany in the '60s. The brain, like every other organ of the body, contains phosphorus, and a score of other chemicals besides. Why the phosphorus should be picked out as its essence, no one knows. It would be equally true to say "Ohne Wasser kein Gedanke," or "Ohne Kochsalz kein Gedanke;" for thought would stop as quickly if the brain should dry up or lose its NaCl as if it lost its phosphorus. In America the

[1] They may be freely translated:
Fodder your beasts in a suitable way with light-giving Phosphorus—
Wiser than Moleschott, they,—granted the dose be correct.
Feed them too little, you blight them, and make of them stupidest asses;
Give but a grain too much—! See them all burnt to a bone!!!

[2] Zweite Auflage. Erlangen, 1853, S. 120.

[3] N. Y., 1890, Vol. 1, p. 101.

phosphorus-delusion has twined itself round a saying quoted (rightly or wrongly) from Professor L. Agassiz, to the effect that fishermen are more intelligent than farmers because they eat so much fish, which contains so much phosphorus. All the facts may be doubted.

Mark Twain, in 1875, was perhaps more humorous than he realized, when he placed whales with fishes in this "Answer to Correspondents":

YOUNG AUTHOR.—Yes, Agassiz *does* recommend authors to eat fish, because the phosphorus in it makes brains. So far you are correct. But I can not help you to a decision about the amount you need to eat—at least, not with certainty. If the specimen composition you send is about your fair usual average, I should judge that perhaps a couple of whales would be all you would want for the present. Not the largest kind, but simply good, middling-sized whales.

"American humor is nearly as ephemeral as the flowers that bloom in the spring," writes Aldrich. "Each generation has its own crop, and that of 1860, were it to break into blossom at the present moment, would probably be left to fade upon the stem." But some, perhaps, would regret to lose what has here been recorded of Lowell. As to Mark Twain, he "is not to be classed with the fragile plants."

FREDERIC T. LEWIS
HARVARD MEDICAL SCHOOL

AS STUDENTS UNDERSTAND IT

IN SCIENCE of August 29, Professor Ellison A. Smyth, Jr., gives an amusing series of student blunders and carelessness in relation to facts of biology. These plainly show that the persons in question knew nothing and cared less for the work required of them.

But does it not illustrate still more plainly "the dry rot of academic biology" and the misuse of the lecture system?

In his admirable autobiography, Professor Pupin criticizes the University of Cambridge for giving him "information" when he needed "contact." Information is what the usual "lecture courses" give, and what the conventional examination asks for, from which the average student gains nothing. Such information is, in general, mechanically given, imperfectly understood by the student, and soon dismissed from his mind.

The results of contact may be permanent. Only by direct relation to things as they are can any healthy teaching in biological subjects be attained. This was clearly shown by word and deed by Agassiz, more than fifty years ago. In our day, the impulse he gave is unfortunately dying out. It is not now the fashion, even for the teacher, to know anything in detail and with exactness. Some zoologists have never looked an animal in the face. A university should train men to observe accurately, to think for themselves and with enthusiasm. To give information is a relatively minor matter. The Sunday newspaper attends to this.

There are two main justifications for college lectures on science. One is to bring together in unified relation facts developed in the laboratory. The other is to develop enthusiasm, "to give inspiration," as the phrase is. To make such lectures worth while the teacher himself must have a degree of inspiration, with skill in making his words connect with the ideas already possessed by his audience.

The student who has handled a reptile or two will not write: "Reptiles have two or more pairs of limbs, such as the locust and others."

Nor will one who knows a bacillus at sight say: "Bacteria are used when vaccinating a person for disease; again they are used in spraying plants."

The fault in the matter of "senterpedes" and "bile ducks" does not lie with the teaching of spelling in the lower schools, but in the use in college of words which convey no actual meaning. Let us have contact as a basis for information. "It is not enough to tell a student that a magnet attracts iron, he must himself feel it pull."

DAVID STARR JORDAN
STANFORD UNIVERSITY

MAY I add to those choice "howlers" of Mr. Smyth's in SCIENCE of August 29 these two samples.

Mine, however, are not by any bewildered child under stress of examination, but from a printed sermon, written with "The Outlines of Science" open under the preacher's nose, by a doctor of divinity, a graduate of a New England seminary, who has been vice-president of his denominational educational society and trustee of four colleges.

The North Star . . . is said to be moving away from us with incredible rapidity, and yet is so far distant that it has seemed to change its relative position but a very little in a thousand years.

Another valuable feature of the spectroscope is its ability to measure the speed of light, even when the light is coming straight toward the instrument. The speed being determined, the distance of the star from which the rays come can be reckoned.

E. T. BREWSTER
ANDOVER, MASS.

LATIN AS AN INTERNATIONAL LANGUAGE

In reference to the letter of Professor Roland G. Kent about the use of Latin as an international auxiliary language, published in SCIENCE for June 20, 1924, pp. 554–555, may the attention of your readers be called again (see SCIENCE for April 11, 1919, Vol.