But I am especially interested here in adding to what was said by Dr. Franz's commitee a word for the subject of *abnormal* psychology in a premedical course. A glance at any of the text-books on mental disorders—such as those of Stoddart or Diefendorf—reveals at once psychological conceptions of the crudest nature. In the medical school, when the student's attention is necessarily directed entirely to the body side of that complex affair called the human individual, it is but natural that a strongly materialistic bias should develop which, if not counterbalanced by a predirected emphasis on the side of the psychical, is certain to issue finally in a complete loss of the necessary scientific equilibrium. The medical school teacher delights in demonstrating to his pupils that the phenomena of insanity are merely symptoms of diseases of the brain and nervous system, which can be explained in purely physiological terms without invoking any non-material influences. Now this may all be true, but certainly it is but fair that the psychologist should be given his opportunity to demonstrate also that those same phenomenon can be fully described, and many of them explained, in purely mental terms without referring to the brain or nervous system at all, and that a purely psychological *description* is in many cases the only really valid and useful one. It would be well, of course, if all psychologists and all physicians were broad-minded enough to appreciate equally the mental and the physiological factors in human life, but this is perhaps too much to expect of any infra-angelic intelligence! Such being the weakness of the human intellect, therefore, we can but recognize it, and seek to overcome the one-sidedness of the physician's outlook by the other-sidedness of the psychologist's viewpoint.

For the reassurance of the physician it may be well to add that, on the principle that "he who laughs last laughs best," no possible harm can be done by accepting the suggestions I urge, as it is the medical school teacher who will have the last shot at the student and thus the better chance of influencing his views for the future. Furthermore I am convinced that a firm preliminary grounding of the student in the principles of the normal *and abnormal* mind as the psychologist studies them can not but be of the greatest positive value to the physician.

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THE RETENTION OF OIL BY CLAY AT WATERVILLE, MAINE

WHILE attempting to unravel the extent of the post-Pleistocene terrace at Waterville, I had occasion to ask one of the railroad officials, Mr. Thomas Harrold, whether the railroad yards are underlain by clays or the slate ledge which outcrops near by. He informed me that they are underlain by clay and gave the following interesting facts in explanation of his knowledge. In March, 1911, he was superintending the installation of a new set of scales in the Waterville yards. During the excavation for the foundation, clay was encountered a few feet below the surface and a fluid, supposedly water, collected in the hole. Further examination showed this to be kerosene, and about five barrels were removed. The presence of the oil was explained when it was remembered that in 1909 the contents of a tank car had been lost in the yards.

Several years after the events recorded above, in the summer of 1914 or 1915, came a period of unusually heavy precipitation. The water table over the clay rose near the surface and kerosene began to collect in the drainage ditches near the tracks. One man is said to have collected eleven barrels of the kerosene and the adjoining population were so active in digging pits to collect the fluid that the tracks were undermined and the railroad officials found it necessary to prohibit the removal of the oil.

These are the facts as reported to me. I might add that the railroad yards are just to the west of the Kennebec River. The river flows in a slate gorge here, the rock extending to the top of the bank on this side; then comes a flat of 10–15 feet representing the old railroad bed; back of this the ledge is overlain immediately by the fill beneath the present tracks.

The writer has many times noticed the large amount of oil which covers the flat, killing vegetation and sending out a disagreeable bituminous odor. I had always supposed that the oil must represent the concentration from cotton waste, etc., collected there year after year, especially as large car shops are nearby. The true explanation, bringing out as it does the retention of the oil by the clay and the response to ground water conditions, seemed to make a note of the facts worth placing on record.

HOMER P. LITTLE

WATERVILLE, MAINE

THE RECOGNITION OF ACHIEVEMENT

THERE are probably a good many successful scientific men in America who will echo in some measure the sentiments expressed by W. E. Allen in a recent issue of SCIENCE. There certainly should be some method of distinguishing individuals who have attained eminence in their respective lines irrespective of whether they hold a doctor's degree or not. Even the holder of such degrees may well join in a movement to distinguish the real workers from those who have merely secured degrees. It is clear that the doctor's degree does not necessarily indicate exceptional merit; in fact the degree itself has varying shades of importance. A man who has been educated in a prominent institution is much more inclined to write the name of the university after the degree than he is if his university is less prominent.

To the man with a degree, it may seem absurd for others who are not doctors to suggest a distinguishing mark for meritorious work but if such marks are not desirable, why attach college and university degrees to an individual at all? Is the mere fact that he has gone through a prescribed course in a university to be forever remembered regardless of the quality of his work in after years, or shall we demand that he measure up to his promises when the degree was conferred; in short, is it schooling or achievement that shall count?

As time goes on and doctors continue to increase in numbers, some such distinction as has been suggested will become increasingly desirable. This seems a good time to do something about it.

WILLARD N. CLUTE

JOLIET, ILL.

CLOUDS

SINCE the many forms of fog and cloud reveal, as obviously nothing else can, the motions and conditions of the atmosphere, it would seem that their every type must have been the object of innumerable photographic records, and that nothing could be easier than to make a reasonably complete collection of such photographs.

This, however, at least so far as making the collection is concerned, is not the case. Some clouds, such as the mammato-cumuli, the scarf-like wisps that form above thunder heads, the tornado's funnel and several others of somewhat infrequent occurrence appear rarely to be photographed—I have never seen a good photograph of any one of them—while even the more common clouds seem generally to be photographed with inadequate equipment.

To obtain the best photographs of cirri, for instance, that is, to secure such contrast that the finer details may be seen, it is absolutely necessary to use some sort of device by which the maximum amount of polarized sky light may be cut out. Needless to say this is seldom done. Similarly, if one would accentuate the beauty of his cloud picture by including an interesting landscape it is obvious that he must use a suitable ray filter. Finally, as the clouds are drifting, often with considerable velocity, the exposures must be practically instantaneous.

But difficult as photographing clouds may be surely some enthusiasts must have accumulated many fine pictures of them, and I am taking this opportunity of asking if those who have exceptionally fine cloud and fog pictures will not kindly write to me of them, as I am anxious to obtain good examples of every type for the purpose of study and comparison. Of course none would be reproduced without permission and proper acknowledgment.

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