

I have tried to define extreme cases; most of us are blends or mosaics of the two types. It must be admitted, I think, that when a teacher is keenly interested in research, his teaching suffers in some respects. It gains in others, and the question is, how to find the optimum condition of affairs. We seem to be attacking the old problem of progress. We are reproducing on a minute scale the phenomena of evolution. The absence of progress and excessive progress are alike detrimental, and there is a shifting optimum between. My personal opinion, which tends to grow stronger with time, is that our universities mostly err on the side of conservatism and dogmatism, so that additional emphasis on progressive policies becomes desirable. By a sort of paradox, conservative teachers with rigid ideas are frequently undecided or indifferent as to the merits of the systems they expound, rather priding themselves on their academic impartiality. On the other hand, progressive thinkers will be filled with particular ideas at particular times, and will then appear very confident; thus, superficially, our definitions may seem reversed. In reality, the indecision of the conservative is due to the limitations of his field, and is quite different, psychologically, from the indecision of a man who is ardently seeking a solution which still evades him.

There is, of course, another matter to be considered. Granting that a research man, with his necessary limitations, makes a better teacher than one who is only a teacher, what if he loses interest in his teaching? Many will remember instances of this sort, and it is customary to put the whole blame on the man who has thus failed. Is it not possible that the loss of interest is sometimes accelerated by the indifference of those who do not wish to receive the only sort of thing the man can give? There is so much to do in this world that among the numerous possible activities presenting themselves there is a sort of survival of the fittest. No one is justified in "wasting his sweetness on the desert air," if he can help it. The problem then becomes one of creating an atmosphere in which good

teaching can flourish, as well as securing good teachers.

On the whole, it appears that we can not have every good thing at once. It is for each department and man to seek an optimum which will certainly differ according to times and circumstances. It may, however, be worth while to try to understand the psychology of each situation as it arises.

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November 16, 1914

A NOTE ON APPARATUS REPAIR

TO THE EDITOR OF SCIENCE: Doubtless there are many who like the writer have met with accidents where a fused-in-platinum electrode has broken off at the very surface of the glass. Such a thing occurred while setting up Hoffman's apparatus for electrolysis.

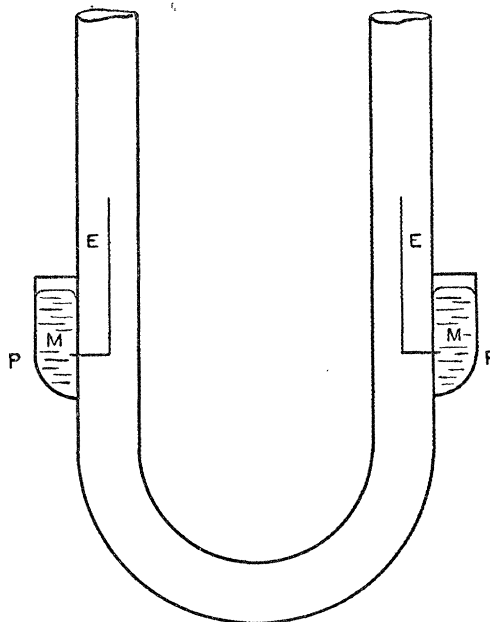


FIG. 1.

In order to repair it the writer took a piece of chamois skin cut to an appropriate size and shape, formed it into a little sack and fixed it with sealing wax to the outer wall of the vertical tube. This sack was so placed that when

nearly filled with mercury the broken end of the platinum wire was immersed in the liquid. To make a connection with the battery circuit it was simply necessary to insert a connecting wire into the sack containing the mercury. This makeshift has worked splendidly many times and there seems no reason why it should not work indefinitely. The sketch shows the arrangement above noted. *E,E*, are electrodes, *M,M*, mercury, *P,P*, the pockets.

The thought occurs to the writer that it would be possible to place on certain pieces of glass apparatus designed with fused-in-platinum wires some sort of glass pocket, the function of which would be the same as the leather pocket above mentioned. It is obvious that this arrangement would do away entirely with the risk of accident.

In the case of much glass apparatus where the electrodes are inserted through the glass the outer terminals are metal rings somewhat securely fixed in place—for example as in vacuum tubes. Even in electrolytic apparatus such a scheme may be used at times. Yet, while that arrangement is certainly an improvement over the projecting-out piece of platinum wire, it seems that the above scheme would lend itself to even more careless and safe handling.

It is further suggested that the same idea might be used on certain forms of vacuum tubes.

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THE TENTERTON STEEPLE AND THE GOODWIN SANDS

ON reading the reference to the Tenterton (Tenterden) Steeple and the Goodwin Sands in the article on "Heredity and Environment" by Mr. Henry Leffman,¹ I wondered whether the reference in question would be generally understood. I did not think so, and in order to test the matter I stated the reference and its connection in a meeting of some seventy high-school teachers, among whom were many A.B.'s, several A.M.'s and a sprinkling of Ph.D.'s. I asked those who understood the reference to raise a hand. The result was

¹ SCIENCE, October 23, 1914, pp. 593-594.

even more meager than I had anticipated—not a single hand went up.

Although most readers of the article referred to may have reached the conclusion which the author evidently took for granted they should reach, yet because the Goodwin Sands have recently been referred to in the war news from Dover (England)—the Sands are in that vicinity—and further because there may be some readers of SCIENCE who are still in the dark about the relation between the "Sands" and the "Steeple," therefore I thought that a brief account of the origin of the incident might not be altogether unprofitable.

In a "Compendium of English Literature" by Charles D. Cleveland, published at Philadelphia by J. A. Bancroft & Co., in 1869, may be found selections from the more prominent authors from Sir John Mandeville to William Cowper. On page 65 of this compendium a biographical sketch of Hugh Latimer is found, and following that are a few selections from his writings. One of the selections (p. 67) is entitled "Cause and Effect," and reads in part, as follows:

Here is now an argument against the preachers. Here was preaching against covetousness all the last year, and the next summer followed rebellion. *Ergo*, preaching against covetousness was the cause of the rebellion—a goodly argument. Here now I remember an argument of master More's which he bringeth in a book that he made against Bilney; and here by the way I will tell you a merry toy.

Master More was once sent in commission into Kent, to help to try out (if it might be) what was the cause of the Goodwin Sands, and the shelf that stopped up Sandwich haven. Thither cometh Master More, and calleth the country afore him, such as were thought to be men of experience, and men that could of likelihood best certify him of that matter concerning the stopping of Sandwich haven. Among others came in before him an old man, with a white head, and one that was thought to be little less than a hundred years old. . . . So master More . . . said: "Father (said he), tell me, if you can, what is the cause of this great arising of the sands and shelves about this haven, . . . [so] that no ships can arrive here? . . . ye of likelihood can say most to it, or at leastwise,