

ship their fees would be paid more willingly than at present and their services would be better worth the larger fees than their present operations are for the small fees they are receiving. Certainly a crown that is made over a well filled root and constructed so that the gums and peridental membrane are preserved from irritation and injury is cheaper to any patient at ten to twenty dollars than a crown made for two to five dollars over a half filled root and so badly fitted that the subsequent abscesses or pyorrhea and the possible arthritis, endocarditis or some other serious infection cause a long illness and a big doctor's bill in addition to the loss of the tooth.

The dental profession is getting a "black eye" from the medical profession and more and more from the public by reason of the men who are willing to lower their standard of skill and thoroughness to meet the competition of cheap prices or the financial necessities of their patients and there are a few men who deserve much more severe condemnation because they are able after a while to increase their fees, sometimes to a very high figure but do not raise the standard of their skill even to the level of their ability. These are the worst of all for they have caused many people to believe that paying large fees does not insure a competent service.

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## RESEARCH WORK BY DENTAL STUDENTS.

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A physician of high standing both in state and nation recently criticised the teaching at Harvard Medical School as being too largely theoretical and too little practical. As a climax to his criticism he cited an instance of a suggestion made to a second year medical student that he do a little Research work.

The criticism on the whole may be just or unjust, I do not know, but the attitude taken toward student research work concerns me greatly. For a number of years it has been my practice to try to interest second year Dental students in some sort of original investigation. If this is unwise I am honestly anxious to be shown how and why it is so.

I know the question has been raised whether research work should be undertaken by anyone with only the average dental education, and that some of our most prolific dental writers have been

criticised because of an inadequate preliminary chemical training.

We are told that research workers like musicians are born, not made. This is undoubtedly true in respect to great research workers or great musicians, but music has a value to others than great musicians, in fact the people absolutely tone deaf are very few and they usually like to sing, likewise the properly guarded effort at original thinking can hardly be without value, great or less, to any individual.

It has been said that the testimony of the untrained observer is, as a rule, wholly untrustworthy. This may be putting it a little strongly but granting it to be true, the fact remains that we are getting a considerable volume of testimony from sources giving evidence of little if any training, and while it is obvious that such research work as students will do may not lead to important results, it will help in correcting present

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conditions and occasionally creates an enthusiasm which abides.

Now just what does research do for the student? A few things may be mentioned. First: it teaches him to use the library and perhaps this is the most important thing it does. The Literary Digest for March 31st quotes from the Saturday Evening Post regarding the ordinary public library, "The library habit is one of the best that any person can form. There should be a more strenuous effort to inculcate it." If this is true of a public library how much more is it true of a professional library? An editorial in the Cosmos for December, 1915, says: "The first step prescribed by an attorney dealing with the protection of a presumably new invention is to make a search of the records," and dental writers are strongly urged to do likewise, and thus save labor and time for themselves and for their readers. It is a point well taken. As a special student in organic chemistry at the Massachusetts Institute of Technology I remember what we called our **complete literature exercises**. We were given a subject such as the preparation of an organic chemical and required to hand in a complete list of references to all published articles in French, German and English on the preparation of our particular chemical. We were not expected to go beyond the literature of available libraries but we were expected to find all that they contained and to reject articles not strictly upon our given subject. This work cer-

tainly furnished a most valuable experience.

Second, a student doing research work learns to look at more than one side of a proposition, hence learns to be cautious about jumping at conclusions. How different life would have been if some of our dental experts along various chemical lines had absorbed something of this as a necessary part of their early education!

Third, the student doing a little research work becomes familiar with the names of the men prominent in his profession and learns something in the history of Dental Research and Research Workers.

Fourth, because of faulty technic or insufficient study the student thinks he learns some things which really are not so. Here is the only objection I know to the scheme, but this becomes negligible if the course is properly planned and the teachers sufficiently careful, and it is better for the student to learn something of his own limitations while still in school, than to wait till a possibly bitter experience teaches him the same thing, after he has established himself professionally.

The topics suggested for student research must of course be selected but until greater light is given me I believe that a most valuable method of broadening our professional outlook is to encourage the student to obtain, in some particular, "first hand knowledge." It is the most satisfactory kind.

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## SOCIAL HYGIENE IN WAR TIME.

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It is generally recognized that the problems of prostitution and venereal disease bear an important relation to the efficiency of military organizations and that it is imperative to deal effectively with these problems as they arise in connection with the military training

camp now in existence or soon to be established in this country. For this end, the American Social Hygiene Association is cooperating with governmental agencies along three principal lines of activity:

**First:** With the Commission on Train-