

7. In directing men aboard or on shore.
8. To extend the possibilities of the dictograph in detecting evidence of crime.
9. To make possible addressing larger audiences and distant audiences.
10. To make it possible for some women with weak voices to nevertheless speak to large audiences.
11. In acoustical research for the study of subliminal sounds.
12. The detecting of subliminal sounds from animals not now known to make sounds.
13. To make more audible the whispers or weak sounds of the sick or injured.
14. To make communication by weak or injured less fatiguing.

That commercial equipment of good efficiency is now readily available may not be known to some of those who might make good use of the apparatus.

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#### CHEMICAL SPELLING

HURRAH for Professor Jacobson and his "chemical spelling match" at the West Virginia University, as described in *SCIENCE* for September 29! Twenty odd years' experience, when permanent secretary of the American Association for the Advancement of Science, in reading the proofs of the program of the chemical section, gave me some definite opinions of chemical terms. I was delighted, in reading the preface to a book recently published by the veteran naturalist, Auguste Forel, to note the expression *la vraie science est l'ennemie des grands mots*. Is it a plain inference from Forel's dictum that chemistry is not a true science?

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#### QUOTATIONS

##### BIOLOGICAL STAINS

THE stains employed by a worker in a series of investigations, and other workers repeating his methods, should involve identical materials. It is not necessary that the chemicals should be "pure"; indeed, the results from a particular method have sometimes been due to an unknown impurity, so recalling the famous salt in Stevenson's "Dr. Jekyll and Mr. Hyde."

But they must be the same, if identifications are to be made by their use.

It was for these reasons and not from any superiority in German manufacture that authorities in microscopical technic so long ago advised the use of German stains and particularly those of Grüber of Leipzig. The advice was generally adopted, so that a practical monopoly of this small but important and profitable commerce in articles essential to medical practice and scientific research fell into German hands, to universal satisfaction. But the reason for the monopoly and the history of its institution were forgotten. When the war deprived allied countries and the United States of German imports of these chemicals, of which only very small stocks were held, manufacturers in other countries went into the trade. But their products were irregular in their action, did not always produce the familiar results and varied from maker to maker.

The supposed German scientific supremacy obtained another advertisement. It was demanded that importation of scientific stains should be allowed, or, alternatively, that by some great transformation, British, French and American skill should be brought up to the German level. Last autumn the National Research Council of America organized a practical inquiry into stains produced in America, obtaining the cooperation of workers in various branches of biological science. Their preliminary report has now been issued. Briefly, it dispels the idea of German superiority. American stains are often purer than the Grüber products; there is no difficulty in producing what is required. But the trouble is standardization; the stains of different manufacturers produce different effects.

It is suggested in the interests of science that the Research Council, after further inquiry, should determine a standard type for each stain, possibly recommending different manufacturers for different stains. But it is of importance that the standardization should extend beyond one country, so that the results of scientific investigation and the methods of bacteriological identification should be available for different countries. The whole business is small from the financial point of view, and it is to be hoped that standards will be adopted