

Dedication Committee, presented a résumé of the project and explained the sponsorship of the erection of a national memorial to "Franklin—the Scientist, the Diplomat, the Printer, the Great American."

THE University of Colorado Museum is moving into its new building, which was finished about September 15 at a cost of \$150,000. It was built with the co-operation of the Public Works Administration. There

are four floors, two of which are for exhibitions, one for teaching, research and administration, and one for the housing of the study collections. There will be exhibits in biology, southwestern archeology, geology, mineralogy and paleontology. It is hoped that it will be possible to open the museum to the public about the middle of November. Professor Hugo G. Rodeck is curator.

DISCUSSION

A PSYCHIATRIC ANALYSIS OF THE PRESENT-DAY MADNESS IN THE WORLD

It has often been stated that the world to-day is insane. When one looks upon the various nations racing madly toward the next war, toward the despotism that reigns over many countries, on the self-inflicted poverty, on the mad desire not to cooperate with others, it is not strange that the world may be regarded as mad.

Insanity, however, is a broad term which covers many different types of personalities and many different types of diseases. Even after a full study it is often impossible to come to a definite conclusion. Nevertheless, it is important to make a diagnosis because upon the diagnosis depends the therapy.

Such a diagnosis is submitted in the following analysis of the various countries. There are many difficulties, many objections and much conflicting evidence to the following statements, but they are submitted in an effort to arouse interest, to stimulate the ideas and the controversy that is necessary in order to throw light upon the events of the day. It is possible that there will be objections; that is too bad. An individual or country must be able to look at itself, to laugh at itself and to understand itself as it is. Whenever a country or an individual becomes too upset by criticism, then that person is basically unstable. The well-balanced man is not affected by criticism, except that it makes him reflect and take into consideration the objections which are offered to his personality. It is with this hope that the following statements are made.

The United States is suffering from a typical manic-depressive psychosis. In the manic phase, just as in the manic patient, it is happy, elated, very active, dreaming great dreams, doing many things beyond its capacity and speaking loudly of the success which it is achieving. Such a manic attack reached its climax in the years before 1929. Following the crash in 1929 came the depressive episode, and here again the analogy between this depression and the manic-depressive depression is striking. In both instances is there a marked retardation, marked ebbing of energy, many complaints, inability to think through clearly, insom-

nia, bad dreams, fears, a poor appetite and a decline in the birth rate. He needs to learn to smooth out his swings.

France reminds me of an elderly, fearful spinster, gingerly treading her way, holding her skirts high, suffering from an excessive emotionalism and apprehensiveness. She was born in the eighteenth century with violent labor pains and much hemorrhage. She is excessively dependent on her brother, John Bull. She is of basically good character but unstable, is brilliant but unreliable.

Germany is going through a depressive phase with marked paranoid symptoms. The depression has been chronic; the paranoid ideas have been coming on gradually in the last few years. She feels that other people are to blame for her own inadequacy. She accuses others with the typical rationalization used by paranoids for her inferior condition. She is, again like most paranoids, eminently logical. She is extremely capable and full of energy and, again like the paranoid patient, goes into meticulous and infinitesimal detail to prove that she is right in her accusations. Such persons are always potentially very dangerous, because they possess reason and great energy. It is hoped, however, that with the lifting of the depression the paranoid symptoms will tend to subside and trust in others will replace suspicion of others. Germany needs to learn to place less emphasis on intellect and to be more tolerant of human emotions and errors.

Italy is really a feeble-minded person who has seen others grow great, who envies them and feels that he too can become a great person. The consequence has been much blowing of the horn, beatings upon the chest, large statements of the greatness of the individual, without any real intellectual attempt, or for that matter ability, to become important. In such instances a spanking often does good; on the other hand, it often leads to sulkiness. What is far more important for such a feeble-minded person is the need for his neighbors to put their foot down on anything that is wrong, while giving him great praise for what he does that is right, no matter how small.

Japan is a small, dynamic, psychopathic personality with marked temper outbursts and ideas of grandeur. Because of its basic characteristics it antagonizes

people and insists upon its own way. Such persons are motivated by a single idea and will often perish rather than give it up. It will be a long time before it will be content to govern just itself.

Russia is physically a strong young man who has just passed through the throes of puberty. There has been much internal conflict with emotional discord, unsettledness of purpose, vague ideals and dreams, reckless pursuit of a shadowy goal without much consideration to the practical obstacles. With the passing from the stage of puberty into the stage of adolescence it begins to develop more and more sense. It is still, however, far from leaving the impractical idealism of the youth. Age may give it wisdom.

China reminds me of a middle-aged, bald-headed man who once was very fat but now has become gaunt and has large hanging folds of skin. He is essentially lazy, calm, philosophical, and would rather spend his days fishing than working in the field. He is a kindly old soul who wishes to be left alone and desires not to interfere with other people. There are some signs, however, of his becoming very irritable at the persistent stings given him by the irascible, small, psychopathic neighbor. He will lose his temper some day and chastise this neighbor. The irritation will make a man out of him, so that after getting rid of it, he will settle down to a more organized and systematized life.

England is a solid, settled business man who has just gone through a depression and has "taken it like a man." However, because of his age, near the sixties, he is conservative, somewhat apprehensive, wishes to let things take their course, and does not desire to

The only really normal countries in this world to-day are Norway, Sweden, Denmark, Holland and Switzerland.

Holland is a calm, placid, peaceful man of middle age who goes his own way, minding his own business, working industriously, taking care that his toes are not particularly stepped on, but free from any real hysteria.

Norway and Sweden similarly are hard-working, clean citizens who wish only to be let alone, to cooperate in the community singing group and to be allowed to earn an honest living.

Switzerland also is normal but quite uneasy because of his neighbors. There are signs of insomnia and general restlessness.

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RATE OF REACTION AND CONCENTRATION OF ENZYME

THE note by Dr. Oscar Bodansky in the July 16 issue of SCIENCE concerning the invalidity of the widely accepted "Schütz-Borissov Law" for the relation between rate of reaction and enzyme concentration recalled some work¹ on this subject by some colleagues and myself which seems to have been not at all noted by chemists. Dr. Bodansky points out that while the Schütz-Borissov law is to the effect that the velocity of reaction is proportional to the square root of the concentration, the velocity is actually proportional to the first power.

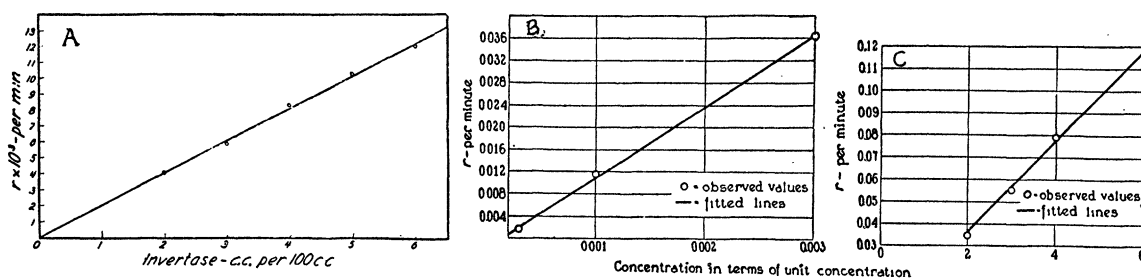


FIG. 1. A. Invertase and Sucrose (data from Nelson and Hitchcock, *Jour. Am. Chem. Soc.*, 43: 2632-55, 1921). B. Urea and Urease (data from Van Slyke and Cullen, *Jour. Biol. Chem.*, 19: 141, 1914). C. Dipeptid and Enzyme (data from Abderhalden and Michaelis, *Zeits. Physiol. Chem.*, 52: 326, 1907).

interfere with the ordinary plan of things. He has a large background of experience, knew what it was to be the head of a large firm and still has many potentialities. It remains to be seen whether age will get the better of him. He has become "too set in his ways" and needs to change. He has many grown-up sons, some of whom are stable, some of whom are unstable, but practically all of whom are wilful. These colonies take after their parent in some ways.

Our work was concerned primarily with the testing of a proposed equation for describing the course of the reaction between enzyme and substrate. One of the parameters of the equation measures the rate of reaction, and incidental to our work we studied the relation of the rate so measured to the enzyme concentration. Our results clearly support Dr. Bodansky's

¹ J. Berkson and L. B. Flexner, *Jour. Gen. Phys.*, 11: 433, 1928. J. Berkson and F. Hollander, *Jour. Wash. Acad. Sci.*, 20: 157, 1930.