the case with methionine sulfone or cysteine sulfinic acid or with the other amino acids tested. Bleached areas may be more readily observed by the transmitted light of an X-ray viewer.

R_F values (*2*) for the phenol-ammonia-gas system, together with a description of the rapidity and sensitivity of the test, are given in Table 1. The column describing the amounts detectable denotes quantities which we have readily discerned. Sensitivity thresholds are probably much lower. On a nonchromatographed sheet methionine could be detected at a 0.4-γ level. Because of spreading during chromatographing, sensitivity is decreased.

Of the other amino acids ordinarily encountered, only threonine and serine affect the reagent at all. After 3 min these give only faint tests—not strong enough to be confused with the sulfur-containing amino acids. Except for cysteic acid, the reagent seems to be specific for the sulfur amino acids and is sensitive to the quantities commonly encountered in paper chromatography. It is rapid and convenient to apply and may be considered a useful adjunct to the many other methods rapidly becoming available for the detection and estimation of chromatographed material.

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A Brain-Wave "Correlator"

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What is believed to be a new instrument for analyzing the electrical activity of the brain consists of two square-wave generators, actuated by the outputs of two channels of an electroencephalograph. Each square-wave crosses the axis at the same instant that its original EEG signal does, but is independent of the latter's wave-form and amplitude. Addition of these square-waves produces a voltage which is a three-valued function of time, being positive when both inputs are positive, zero when they are of unlike sign, and negative when both are negative.

The "voltage" of this composite square-wave, as read on a suitably lagged and calibrated a-c voltmeter, indicates the fraction of the total time during which the two inputs are of the same sign. If the inputs are alike, this fraction is unity and the meter reads +1. If one input is reversed, the fraction is zero and the meter reads −1. Unrelated inputs are of the same sign half of the time, and the reading is zero. Intermediate positions of the meter quantify the correlations reproducibly and more precisely than can be done by inspection.

Monopolar leads (the "indifferent" lead being placed on the ear lobe) have been used in observations on man. To date, only positive correlations have appeared between any two electrodes on the scalp; yet low values of correlation obtainable with certain locations of electrodes indicate that the common activity introduced by the ear is not of much consequence. High correlations sometimes occur when electrodes are symmetrically placed. Disturbing noises or hyperventilation reduce the correlation.

In cats and monkeys with exposed cortex, correlation increases with proximity of the electrodes, but it also depends on functional organization. With the two electrodes in one neuronographic area a high correlation is obtained, but this drops—sometimes abruptly—when one electrode crosses the border into another area.

In one cat Metrazol and one other convulsant each lowered the correlation, whereas CO_2 raised it.

These correlators are now in use in clinical electroencephalography and in experimental neurophysiology, but it is too soon to estimate their full utility.

Spontaneous Increase in Potency of Thromboplastin From Acetone-extracted Brain Tissue[1]

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In the course of studies in our laboratory on the one-stage prothrombin test (Quick), a spontaneous increase was observed in the potency of thromboplastin prepared from an acetone-extracted (*2*) human brain specimen. Our methods for the preparation of reagents and for performing the prothrombin test are given in detail elsewhere (*1*). One feature of this procedure of significance in the present observations is the storage of large quantities of acetone-extracted brain in an evacuated calcium chloride desiccator in a refrigerator. We have found no significant change in the potency of thromboplastin prepared from brain tissue stored in this manner for periods up to two years, *provided the material is gradually used up during the period of storage.* However, we have found that unused *remnants* of brain tissue, stored in this manner, may exhibit striking increases in potency and other unusual characteristics.

The thromboplastin reagents used in these experiments were prepared by incubating 0.3 gm of acetone-extracted brain tissue in 5 cc of 0.9% NaCl solution for 15 min at 48°–50° C. The milky supernatant fluid was used for testing. Solutions of either 0.0075M or 0.025M $CaCl_2$ were used for recalcification. All dilutions of plasma and thromboplastin reagent were made with 0.9% NaCl.

A specimen consisting of several hundred grams of acetone-extracted human brain (H 46) showed no change in thromboplastic potency during a storage period of 210 days. A remnant consisting of 2.5 gm of this material, which was stored in a 50-cc Pyrex beaker, was

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