preparations occasionally contained as much as 40–50 per cent. of the acid, the remainder consisted of liquefied hydrogen sulphide, sulphur dioxide, carbon disulphide and hydrogen cyanide. The two chemists mentioned give the following description of the preparation of the chemically pure acid: Powdered potassium sulphocyanate, which has been fused until free from water, is mixed with an equal weight of phosphorus pentoxide in a distillation flask, connected with a receiver which is cooled in a mixture of ice and salt. The air in the flask is displaced by purified hydrogen under 40–60 mm. pressure. Concentrated sulphuric acid is now added gradually to the mixture in the flask, which is immersed in ice-water. The pure sulphocyanic acid collects in the receiver as a mass of white, dry crystals. At 0° it may be retained several hours in a closed vessel. It melts about 5°, and the liquid, in a few minutes, becomes deep red and then quickly solidifies, forming slender yellow needles; heat is evolved simultaneously. At 0° the acid dissolves in water almost without decomposition, but at the ordinary temperature polymerization products are formed. The acid has a sharp caustic odor and it rapidly attacks the skin.

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GEOLOGIC WORK ON THE COASTAL PLAIN

THE active cooperation of the States of the Atlantic and Gulf coasts, from the mouth of the Potomac to the Mississippi is enlisted in an investigation for which preparations are under way at the United States Geological Survey.

A systematic study is to be made of the age, character, and general relations of the rocks of the Coastal Plain, special effort being made to determine the position and extent of beds of economic interest, including water-bearing beds, phosphate deposits, fuller's earth, and other materials.

The general plan of the investigation was formulated at Washington on the first of January, 1907, at a conference invited by the Director of the National Survey and participated in by state geologists Kummel of New Jersey, Clark of Maryland, Watson of Virginia, Pratt of North Carolina, Yeates of Georgia, Smith of Alabama, and Crider of Mississippi, the heads of the survey's geologic and water resources branches, and M. L. Fuller and T. W. Stanton, also of the National organization.

At this conference the work that had already been done was discussed and arrangements were made for one of the most extensive cooperative investigations ever undertaken by the Geological Survey. The discussion brought out the fact that the work in New Jersey and Maryland had been completed under the auspices of the states, while that in Alabama is far advanced. The Geological Surveys of North Carolina, Georgia, Alabama and Mississippi have also done considerable work in the Coastal Plain region, and reports on the water resources of Georgia and Alabama have been published by the state bureaus. The work of the National Survey in this area has been confined to investigations of underground water problems in Virginia and North Carolina and to studies of the phosphate deposits of Florida.

If present plans are carried out field work in Virginia, North Carolina, South Carolina, and Florida will be completed during 1907, and that in Georgia, Alabama and Mississippi will be reserved for 1908. It is expected that the entire investigation will be completed and a final report submitted for publication in 1909.

General supervision of the work rests with a board of which W. B. Clark, of the Maryland Survey, is chairman and which includes the chiefs of the geologic and water resources branches of the National Survey and the state geologists of the interested states. The field work, which will be directed by M. L. Fuller, will be done chiefly by members of the United States Geological Survey, but state representatives will also be employed in North Carolina, Georgia, Alabama and Mississippi. The necessary paleontologic work will be directed by T. W. Stanton.