

SCIENTIFIC EVENTS

MAGNESITE IN SOUTHERN NEVADA

A MASSIVE deposit of magnesite of unusual character that has recently been brought to the attention of the United States Geological Survey promises to yield a large and readily available supply of this material. The deposit lies in Clark County, Nevada, in the valley of Muddy River, one of the tributaries of Virgin River, a few miles above the town of St. Thomas. The material has been known for some time as kaolin, and successful experiments for utilizing it as a porcelain clay are reported to have been made, though they have not yet resulted in the exploitation of the deposit. The recognized outcrops have been located as mining claims, and some preliminary exploration and development work has been done. A side track on the St. Thomas branch of the Los Angeles and Salt Lake Railroad, about three miles northeast of the northernmost group of claims, offers a readily available railroad connection, and the station has been named Kaolin from this deposit.

The so-called kaolin is stated by the Geological Survey to be in fact a magnesite and was deposited in a highly magnesian sedimentary bed, a part of a regularly stratified series of sedimentary beds exposed by stream channels that cut across a low ridge at the upper edge of Muddy Valley. The deposit forms a chalky-looking bluff, dazzlingly white in the bright sunlight. The material is porcelain-white, fine grained and massive, is remarkably free from foreign material, and has the structureless appearance and conchoidal fracture that are generally characteristic of magnesite. It is not so hard as the more typical magnesite, and it crumbles more rapidly on exposure to the weather.

The deposit is included between tilted beds of conglomerate and sandstone below and shale above. The lower contact is sharply defined, but the magnesite grades up into the overlying beds. The purer part of the deposit consists of beds aggregating at least 200 feet in thickness. Within the section of purer material there are a few bands of sandy matter, but these are minor in amount and apparently almost negligible, as they could undoubtedly

be avoided in mining. The whole section lies in the form of a "hogback"—that is, the softer beds lap up against a uniform slope of the sandstone and conglomerate that has a northeasterly dip of 30° to 50°.

The region in which the deposit lies is in large part covered with alluvial wash, which conceals most of the bedrock formations, so that the section including the magnesite is exposed at only a few places where streams have cut down through the overlying deposits. The regularity of the exposed section and the continuity of the harder beds, which project through the surface wash, justify the assumption that the magnesite is practically continuous between exposures and for considerable distances beyond. Its length at the surface seems to be a mile at least.

THE BRITISH CHEMICAL INDUSTRY

SIR JOSEPH LARMOR, professor of mathematical physics at Cambridge and member of parliament, writes to the *London Times* as follows:

I have no claim to expert technical knowledge on chemical matters, but with others I have been wondering what is involved in the announcement in the House of Commons that the British Dyes Association are entering into negotiation with the German Color Industry Combine.

I well remember the remonstrances of scientific chemists when this national venture was placed under the direction of business men and members of the House of Commons early in the war; but it was reasonable at that time that the energies of the government that was conducting the war should not be distracted on smaller matters.

The welcome letter of Sir William Pope suggests further questions, to which answers must now be available and possibly instructive. Has the American dye industry, also started during the war, been as hopelessly unfortunate as our own? Have the attempts to develop the fixation of atmospheric nitrogen in this country, on methods which supplied the paramount needs of Germany during the war, met with better success? If the industry of fine chemicals is to be worked by British companies supported by the government, under German direction and instruction, what is to become of the armies of young men who, at the universities, have been undergoing long and expensive training in chemistry, in order