

fibers, says Prof. Seifriz. Likeliest structure, on the basis of evidence now in hand seems to be one of overlapping parallel submicroscopic fibers, with minute gaps between their ends. This resembles the theoretical structure of rubber.

The ceaseless, pulsating stretch-and-contract that we see at its highest development in the beating heart and the breathing-muscles runs throughout the whole living world, wherever pro-

toplasm exists, Prof. Seifriz points out. In its most primitive embodiment it is found in the very lowly organisms known as slime-molds, which consist merely of naked masses of protoplasm. These creep and flow with a readily detectable pulsation, slow but rhythmic.

The book is a symposium, to which nine other specialists besides Prof. Seifriz have contributed chapters on various phases of the study of protoplasm.

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forms a thin wrapping for the spindle, called "cigaret mica." All tubes in radio receiving sets require from two to four pieces of mica to hold the filaments upright and to keep the internal assembly rigidly in the center of the tube. In every tank, airplane, and ship, mica is essential to the condensers.

Fortunately, large supplies of mica are found in this hemisphere. The United States and Canada have for some years been sources. The crucial problem in production, should the hemisphere be separated from Indian sources, lies in the lack of trained, cheap labor to grade and split the material.

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## RESOURCES

## This Hemisphere Searching For Cheap Labor for Mica

### No Machine Exists Which Can Grade and Split the Delicate Mineral as Expertly as Hands in India

**T**HREATENED by the jeopardy of India with loss of high-grade mica vital to high-compression airplane motors and scores of electrical appliances, this hemisphere is looking around its own back yard for opportunities to begin a substitute mica industry.

Not only did India produce 6,334 short tons of a total world production of 9,016 short tons, but her mica was expertly graded and split by family labor content with 9 to 12 cents per day.

Argentine, Brazil, Mexico, Canada and the United States all have rich mica deposits, now being surveyed for increased production—but there is little expert mica labor, and none willing to work for Indian wages. Neither has western man been smart enough to invent a machine which can grade and split the delicate mineral as expertly as the swift, brown hands of Indian families.

Consequently mica users in this hemisphere, used to the excellence of the

Indian product, have scorned efforts by nearby producers in Brazil whose grading was careless.

Several plans are under study for introducing the mica-splitting industry into this hemisphere. Canada already produces a small quantity of splitting and could produce more if prices rose. Mexico and Puerto Rico have been suggested, the latter on account of its abundant supply of cheap labor. But even in Mexico and Puerto Rico labor demands far higher pay than the workers of India.

Mica is important to electrical appliances because it can be divided into thin, flexible, transparent films which are unaffected by fire, water, electricity, or acid, and whose volume remains constant in extreme heat and cold. These characteristics are found in no other substance, and no synthetic substitute having similar qualities has so far been discovered.

One of the most important uses of mica is in the insulation of airplane motor spark plugs, in which the mica

## MEDICINE

### Compromise Treatment Suggested for Syphilis

**A** COMPROMISE between the radical "five-day" treatment for syphilis and the usual 18-month treatment is proposed by Dr. Harry Eagle and Dr. Ralph B. Hogan of the U. S. Public Health Service and the Johns Hopkins Medical School (*Science*, April 3).

From a study of 2,000 rabbits with syphilis, the two physicians noted that within broad limits the curative dose of Mapharsen under any one type of treatment did not vary with the length of time the treatment required. On the other hand, the margin of safety increased as the time-period over which the drug was given increased.

"In the absence of evidence to the contrary," they state, "we must assume that these same considerations apply in human beings."

They accordingly arranged three schedules of treatment for patients with early syphilis in twelve cooperating clinics. The schedules are: injections three times weekly for four weeks; injections three times weekly for six weeks; injections three times weekly for eight weeks. So far, they report, there have been encouragingly few bad effects from the drug.

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A horse needs two or three pounds of feed each day for every hundred pounds of body weight.

The true *sarong*—as distinguished from the Dorothy Lamour version—is worn by both men and women in the Malay Archipelago, Ceylon, and some parts of India; it is a long strip of cloth, sewed together at the ends and worn as a petticoat tucked around the waist.

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