

MEDICINE

Trench Mouth Remedy

Sulfathiazole tablets dissolved on the tongue cause throat soreness and other symptoms to disappear in just three days.

►SULFATHIAZOLE "may be a specific cure" for trench mouth and the sore throat that often goes with it, Major C. S. Linton, M. C., A.U.S., suggests. (*Journal, American Medical Association*, Oct. 9)

Definite improvement in the soreness of the throat within the first 24 hours and practically complete cure within three days followed the use of this drug in the first four cases, Major Linton reports. With other methods of treatment, whether the infection is in the gums or the throat, an apparent cure in 10 days is considered satisfactory and even then there may be a recurrence.

The condition has been seen recently in several soldiers returning from the South

Seas. Because cases of this type are likely to increase under war conditions, Major Linton states he believed it advisable "to make this preliminary report showing remarkable recovery under treatment with sulfathiazole."

Only one case in which a sulfa drug was used for this condition has previously been reported, so far as Major Linton could find. Treatment in this case resulted in a "remarkable cure," but another authority writing on the sulfa drugs, Major Linton found, states they had been used in such gum infections as pyorrhea and trench mouth without benefit.

In Major Linton's cases, the patients were given sulfathiazole tablets to dis-

solve on the tongue every two hours during the day and every four hours during the night. The tablets for use at night were twice as strong as the daytime ones. After two days the patients stopped using the tablets, unless directed to continue because the symptoms had disappeared.

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ASTRONOMY

Our Galaxy Composed of Imperfectly Mixed Systems

►TWO SYSTEMS of stars in various stages of development have mixed in an irregular manner to form our galaxy, according to Dr. A. N. Vyssotsky and Dr. Emma T. R. Williams of the Leander McCormick Observatory. Stars of the main sequence, which constitute the great majority of our stellar universe, conform to one code of motion and distribution, whereas the more massive giant stars follow a very different code of their own.

The apparent galactic concentrations of main-sequence stars can be predicted from those of A-type stars by assuming that there is the same sort of equipartition of energy among these stars as is found among the molecules of our air, Drs. Vyssotsky and Williams report in the *Astrophysical Journal* (September). The giant stars, on the other hand, do not follow the same pattern.

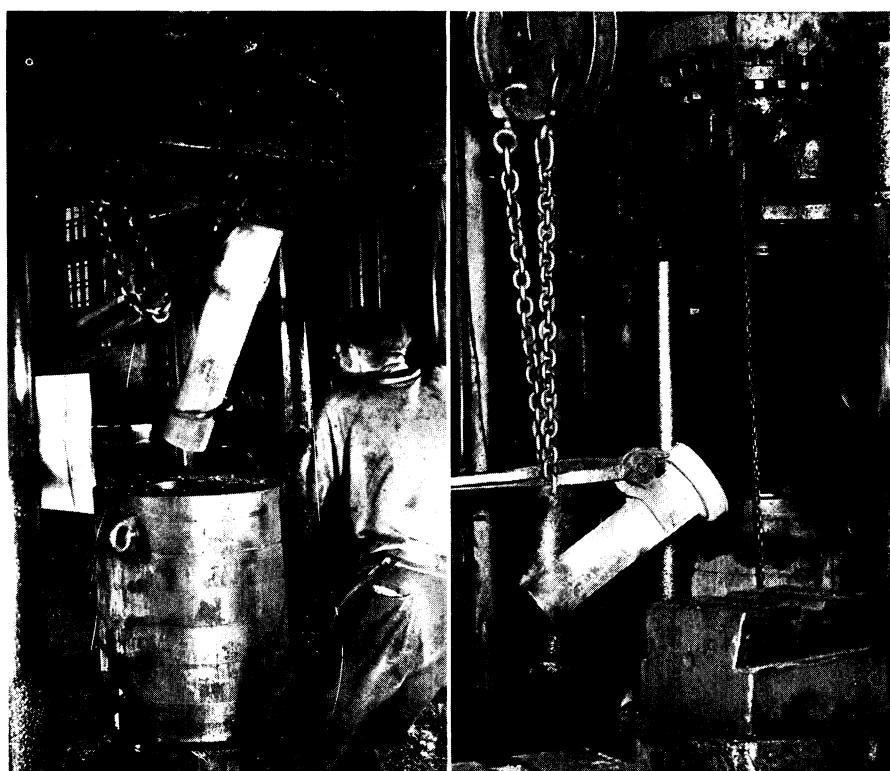
Among the stars of the main sequence, the University of Virginia astronomers find the mean kinetic energy of the red dwarfs to be about the same as that of the much more massive A-type stars. From this they assume that all types of stars of the main sequence have, on the average, the same kinetic energy.

Just as in an atmosphere of uniform temperature the heavy molecules tend to remain at lower levels than the light molecules, so among the main-sequence stars the massive stars concentrate more toward the central plane of the Milky Way than the lighter stars.

The much greater kinetic energies of the giant stars, they point out, agree very well with the relatively small concentration of the giants towards the plane of the Milky Way.

The imperfect way in which the two systems of stars are mixed is seen in the fact that in some parts of the Milky Way there are clouds of main-sequence stars and relatively few giants, whereas in other parts of our galaxy the giants appear to be more frequent.

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NEW METHOD—Shafts for generators for Navy ships can now be squeezed out in a die by a 1,000-ton press almost as quickly as a baker cuts out cookies instead of being shaped with laborious pounding with a steam hammer. The die is the idea of Joseph K. Miller, shop foreman in the East Pittsburgh plant of Westinghouse Electric & Manufacturing Company, who received a prize for his victory-speeding suggestion. At the left, a red hot steel bar is being dropped into the die. At the right, it is being removed after shaping.