



### DOLLARS FROM HEAVEN

Radiometeorographs, which are featherweight robot weather observatories, are carried high into the upper atmosphere by small unmanned balloons. The tiny radio sets they carry automatically send messages back to the scientists who launch them. At the top limit of flight, the balloons burst and the radiometeorographs are carried gently back to earth by parachute. Since the instruments are moderately costly, the companies that make them and lease them to the Weather Bureau offer rewards, which may be as high as \$20, for their return. These boys are examining the treasure trove that dropped into their own front yard.

expressed in I. Q., is the same as it usually is in the language of Wall Street, 100. The range of 10 points on either side of that I. Q. score of 100 is just what the greatest number of normal healthy American boys and girls might be expected to rate.

If your boy rates between 110 and 119, he is bright. If he stands between 120-129, he is very bright. If above 130, you are justified in calling him gifted. If he should tip the mental scales at 180 or more, you may term him a genius. Of such, Dr. Harvey Zorbaugh at New York University, estimates there are only about two dozen in all New York's million school children.

At the other end of the scale, those rating between 80 and 89 are backward, 70 to 79 borderline, and below 70 feeble-minded. The mentally defective are again divided into morons, 45 to 69, imbeciles, 20 to 44, and idiots, 0 to 19.

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## • Radio

Every Friday at 7:30 p. m. EDT, 6:30 p. m. EST, 5:30 p. m. CST, 4:30 p. m. MST, or 3:30 p. m. PST, Science Service cooperates with the Columbia Broadcasting System in presenting over the Columbia coast to coast network a new series of "Adventures in Science" presenting dramatizations of important scientific advances and discussions by eminent scientists.

### CHEMISTRY

## Method Needed For Detecting Oxygen Lack

LACK of any simple, quick means of detecting the absence of oxygen is imperilling the lives of fire fighters, declares Dr. Harrison E. Howe. (*Industrial and Engineering Chemistry*, Sept.)

"Equipped as departments now are with protective masks, they are naturally called upon to make rescues of men overcome by toxic gases. But this often brings them into an atmosphere so deficient in oxygen as to be fatal," says Dr. Howe.

Oxygen-supplying apparatus is available, but it is so bulky and heavy as to be difficult to use in many situations. The protective equipment with which fire fighters are fitted removes toxic gases, but it does not supply oxygen.

"One thinks of the safety lamp used by miners, the possibility of carrying a cage of canaries or the advice sometimes given to farmers to lower a lighted lantern into a silo, but we must do better than that," Dr. Howe continues.

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### PSYCHOLOGY

## The Child Who Can't Learn May Be Behavior Problem

DEFIANT, restless, truant, and subject to temper outbursts. That is a picture of what school officials know as a "problem child."

It is also a typical picture of a child who has failed in learning to read, write and cipher—particularly to read, Dr. Charles L. Vaughn, of Detroit's Psychopathic Clinic, has learned from a study of boys at the Wayne County Training School.

These boys were from 12 to 15 years old and yet tests showed them to be below grade three in reading. In other words they had spent about nine years in school trying to learn to read, without success.

It is hard to realize the insult that such a prolonged failure is to the sensitive nature of a child. If he cannot learn to add, that is to some extent at least a private matter between his teacher, his parents, and himself. He can hide those arithmetic papers with the damning zeros.

But when it comes to reading, he is asked to stand up before the whole class and demonstrate almost daily his weakness.

If you have struggled with an income-tax blank, a difficult cross-word puzzle, or one of those baffling Oriental cut-up puzzles, you know the exasperation that can result from failure even when no audience jeers at your mistakes.

A child should not be forced to learn to read and to try to master other school subjects until his mind has matured sufficiently to make it possible, is Dr. Vaughn's conclusion.

Teachers should try new methods of instruction with the child who is not learning, or else the child should be given another type of program, such as handwork, that he can master.

No child should be forced to submit to ignominious failure until his whole personality is disorganized, and catastrophe brings him to the psychopathic clinic.

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