ordinary type. X-ray analysis and electron diffraction showed that the main crystal structure is the same in both. The difference must be due, the experimenters concluded, to the secondary structure, which Dr. Fritz Zwicky of Pasadena has shown may profoundly affect many physical properties of crystals. Close examination revealed a series of fine striae on one face of the transparent type, spaced from 4 to 40 hundred-thousandths of an inch apart. These were found to be the edges of layers that extended through the crystal. It is believed that they were produced by pressure.

Many other properties of these rare stones besides their transparency to invisible light were investigated in a very extensive research. In most properties they differed but little from ordinary diamonds. They exhibited, however, marked photo-electric effects, which in ordinary diamonds are very feeble. They produced an electric current under the action of light without the help of a battery, a property possessed also by a few other substances, notably selenium.

A search of the literature revealed that laminated diamonds had been observed a number of times before. Robert Boyle, as early as 1772, described a diamond which he had set in a ring, and which he described as "consisting of several plates having their edges distinguishable like those of a book a little opened." Never before, however, have the physical properties of these stones been so thoroughly and exhaustively investigated.

Science News Letter, May 19, 1934

CHILD CARE

Training of Deaf Child Should Be Started Earlier

HERE is another forgotten class in our modern world.

This one, as a matter of variety, is not suffering primarily from economic depression. It is a class found to be suffering from sentimentality and lack of common-sense information. It is a class that does not know it is being neglected until years after the damage is done.

In short, the forgotten deaf child, with his bright face and aloof, shut-in ways, is called to the public's attention.

There are no figures to show the annual number of babies born deaf or who become deaf before they learn to speak. These handicapped infants are so widely and thinly scattered through the massses of population that they make no great show. But educators who see the steady flow of deaf children into schools and institutions are convinced that the birthrate of deaf babies must be considerable, and that there is acute need of reaching the parents with information about training them.

The Volta Bureau for the deaf, established in Washington by Alexander Graham Bell, is campaigning actively to reach these parents with information.

When young parents discover that their baby does not hear all the things they are saying happily to him, they are shocked at what seems to them a family disaster. The Volta Bureau finds that, in their dismay, parents usually turn to the family physician for counsel. If the physician is not informed on the specialized work of educating the deaf, he gives what seems to him common-sense advice: That is, he says nothing can be done until the child is of school age, and is ready for a school for the deaf. Sometimes, a soft-hearted physician tries to soften the sudden blow for the anxious parents by saying that perhaps the child will outgrow his deafness, regardless of the fact that this rarely if ever occurs.

Advice of this sort, meant to be reassuring, is definitely harmful to the interests of the person most concerned —the deaf baby—emphasizes the Volta Bureau. Any intelligent mother can give a deaf child valuable training in the preschool years, if his mind is sound. With her home teaching and whatever facilities her community offers for teaching and treating a deaf baby, the little "shut-in" may go a long way toward becoming part of the social world. Among the beginnings that can be made, the Volta Bureau mentions:

1. The very young child may begin to read the lips of others, to understand what they are saying.

2. Whatever dormant hearing he has may be stimulated, thus salvaging it. Even a remnant of hearing is infinitely valuable.

3. Normal voice quality may be cultivated by encouraging the child to laugh naturally aloud and to babble as children do, in a voice not too loud. Teaching the deaf child to speak is usually best left to trained teachers, lest wrong sounds become fixed habits.

4. Though the mother cannot do much to teach the child to speak, she may start him at reading and writing.

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PSYCHOLOGY

New Test Predicts Engineering Ability

THE BOY who has his heart set on being an engineer may now be able to find out whether he has a gift for engineering, before spending long years of college preparation.

New scientific tests which measure aptitudes for engineering were described before the Midwestern Psychological Association meeting. Prof. Clair V. Mann of the Missouri School of Mines and Metallurgy is author of the tests.

The tests are designed to appraise a freshman's possession of qualities actually used in engineering such as cordination of hand and eye, visual perception of spatial relationships, and form discrimination.

Science News Letter, May 19, 1934

METEOROLOGY—AVIATION

Chemical From Wells Makes Ship of the Sky

See Front Cover

PICTURED on the front cover of this week's SCIENCE NEWS LETTER is the metal sphere in which Major William E. Kepner and Captain Albert W. Stevens, Army balloonists will attempt to soar to new stratosphere heights under auspices of the National Geographic Society.

The gondola is made from an alloy, of which 95 per cent. is pure magnesium, a chemical recovered from the brine of oil wells. Aluminum is half again as heavy as this alloy and steel would be nearly four and a half times as heavy. The extreme lightness, accompanied as it is with strength, will give the stratospherists a decided advantage.

The man at the left is peering from one of the two manholes—a worker is preparing the other. The covers of these manholes will be released on parachutes to slow the balloon's descent when breathable atmosphere is reached.

Science News Letter, May 19, 1934