

Intelligence Of Policemen

One California town, at least, has a police force with intelligence averaging higher than that of college freshmen and army officers. This announcement, following on the heels of statements that policemen in American cities are short on brain power, is the result of an investigation made at Palo Alto by Maud A. Merrill, of the psychology department of Stanford University.

The investigation was designed to find out whether men of comparatively high intelligence and ability make good policemen and are satisfied with the work, Miss Merrill reports in the April number of the *Journal of Personnel Research*.

For two years, each applicant for the Palo Alto force has been given the Alpha intelligence test used to grade the mentality of United States soldiers during the war. Out of 113 applicants, 30 were chosen on the basis of their intelligence together with the impression they made on the examiners.

"The average Alpha intelligence score of men who have remained on the Palo Alto police force for two years is 143.5, a score higher than the average for army officers and higher than that reported as the freshmen average at many colleges," says Miss Merrill.

"The median score of men who have been discharged for inefficiency or for conduct unbecoming an officer is 137. Men who left voluntarily for better jobs have a median score of 171.5. One of these men left the police force to go into grand opera."

The median Alpha score made by white drafted soldiers was about 60.

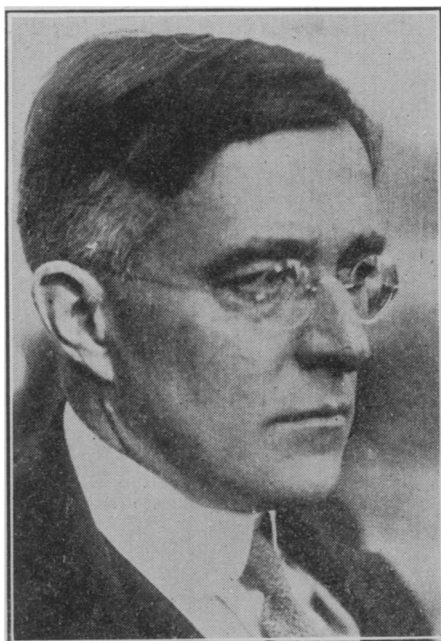
Previous investigations, she shows, have indicated that bright, capable young men do not remain in the police service as a career, the average mentality of the patrolmen being higher in some cities than the mentality of sergeants and lieutenants.

Salaries in Palo Alto are not larger than in other towns. Miss Merrill's explanation as to why bright policemen seem content to enter the force and stay there is that the force is directed by a chief who is progressive and capable.

"Perhaps the organization itself under capable leadership offers an incentive to capable, intelligent men in police work," she concludes.

Science News-Letter, April 2, 1927

People of China once paid taxes in blocks of salt.



IRVING LANGMUIR

Architect Of The Atom

"With an intuition which is the gift of genius only, Irving Langmuir . . . drew from these observations (that the 'inert' gases—argon, helium, etc.—refused to enter into any kind of chemical combination) one conclusion of far-reaching consequence: these elements are inert, he said, because they have 'stable systems'; because the configuration of their atoms is of such a nature as to give us maximum stability and a minimum desire on their part to enter into chemical combination." So says Benjamin Harrow, in his interesting "Romance of the Atom," of one of Dr. Langmuir's chief theoretical contributions to physics.

But in the field of applied science he has also made important contributions, especially since 1909, while he has been in the Research Laboratory of the General Electric Company, of which he is now assistant director. The development of the gas-filled tungsten lamp has largely been due to him, the air pump for producing high vacuum which bears his name has had practical applications in many fields, many improvements in radio vacuum tubes are his and among his most recent inventions is the method of welding with burning atoms of hydrogen, instead of burning molecules, as in the oxy-hydrogen blowpipe, a development which promises to revolutionize the welding industry, for it is now pos-

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To Predict Earthquakes?

Earthquake prediction, commonly regarded as an innocent form of humor, promises shortly to find a solid scientific basis, according to the plans of Dr. John P. Buwalda, head of the new department of geology of the California Institute of Technology. The Institute, in cooperation with the Carnegie Institution of Washington, is embarking on an extensive program of laboratory and field research on earthquakes. The plan, which involves large financial outlay, will cover southern California. While there has never been extensive damage from earthquakes in this end of the state, it is hoped that definite scientific data may be secured in order to determine whether or not a major quake is in the making and if so, where.

Dr. Buwalda tentatively rejects the old idea that a great rock mass may rest silently and immovably under great pressure until some fateful hour when it suddenly cracks and precipitates a disastrous quake. Instead he takes the position that any really dangerous line of rock slippage would already show a crack or "fault" line, in which the two abutting rock masses, temporarily stuck together, would gradually be deformed under a shearing pressure during the periods of years prior to a serious earthquake. The situation might be likened to an attempt to slide one piece of stiff taffy past another. As long as the two cohesive masses stuck together a slight distortion or semi-liquid flow would occur along the crack between them while the sliding pressure was being applied.

Dr. Buwalda plans to set a number of monuments in a very precise straight line directly across a suspected earthquake fault. Provided the original survey is highly accurate, the geologist may determine within five or ten years whether the row of monuments has been twisted out of line. The distortion would have to show an S-pattern, and not a direct break from line, if the geologist is to regard the situation as dangerous. If no actual curves are observed, no great earthquake is in prospect; if there is distortion, then it is time for the city council to revise the building code and begin to brace old buildings. The actual disaster would be analogous to the sud-

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Predict Earthquakes?

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den release of a distorted spring and its potential energy.

Other apparatus is being designed to record upward tilt of rock as well as the side thrust. Improved seismographic records will be kept not only at the central laboratories at Pasadena but at widely scattered stations all over Southern California. Eventually telegraphic communication is to be effected between these stations so as to afford trustworthy information on earthquake velocity.

This research program is of considerable interest to insurance companies now being solicited for large amounts of earthquake protection. Under present conditions such companies are totally at a loss to estimate hazards, and a single disaster could easily wipe out a hundred years of ordinary premiums or bankrupt the concerns.

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Cod liver oil is a good emergency remedy to keep off mosquitoes and biting flies, according to experiences of a traveler in the Pyrenees Mountains.

To What Race Do You Belong?

Race determined
by chemical reactions
of the blood

See the next issue of the

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Architect of Atom

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sible to make a weld as strong as a solid piece of metal.

Born in Brooklyn, N. Y., on January 31, 1881, Dr. Langmuir graduated as a metallurgical engineer from the Columbia School of Mines in 1903, and in 1906 received his Ph. D. from Göttingen. After this, he taught for three years before going to Schenectady. Honorary degrees from Northwestern, Union, Edinburgh and Columbia Universities, the Hughes Medal of the Royal Society, the Nichols Medal of the American Academy of Arts and Sciences and Cannizaro Prize of the *Accademia dei Lincei* have been among the various honors that have come to him as the result of his researches.

Science News-Letter, April 2, 1927

Do You Know That—

Roses are rare in the tropics.

London has a goldfish hospital.

Woodpeckers are natural enemies of the European corn borer.

Trained elephants amused Roman audiences of the first century.

Waterfalls in Iceland are to be used as a source of water power.

Many snowflake crystals are less than a fiftieth of an inch in diameter.

There are wild deer in more than 50 of the 67 counties of Pennsylvania.

Aristotle concluded that dogs dream because they sometimes bark in their sleep.

More than half a million tractors are helping in the work on American farms.

Mangrove trees flourish in sea water, which is deadly to most flowering plants.

Fifteen radio microphones were used in a recent broadcasting of grand opera.

Crocodile meat is liked by African natives, but most white travelers find it impossible.

The average height of a Japanese man at 20 years is a trifle over five feet three inches.

More Eyes and Ears---

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