

PSYCHOLOGY

Uncle Sam Is Streamlining, Mechanizing Civil Service

Punch Card System With Mechanical Sorting Speeds Transfers of Employees to Jobs Essential to Defense

UNCLE SAM is streamlining and mechanizing his Civil Service to fit in with the rush of national defense plans.

Government offices expanding to meet defense demands will not have to wait for the preparation of "eligible registers" in the old way. New agencies will not have to wait for the holding of new examinations. Employees out of jobs because of curtailed, non-defense activities will not have to hunt in the old way for their own new jobs.

Punch cards and machine sorters and tabulators like those used for the Census make it possible to locate in record time all the persons now in Government service who are qualified for any job where need is urgent.

Every employee in the Government service is being asked to furnish the Civil Service Commission with detailed information about his experience, qualifications and even his hobbies.

He will tell whether he is licensed to practice law, whether he is a public accountant, airplane pilot, architect, or veterinarian; whether he can run an addressograph, mimeograph, photostat or telegraph.

For probably the first time, Uncle Sam will lend an attentive ear while the employee tells of his hobbies. He is actually encouraged to tell about his photography and his short-wave radio, about his Sunday lessons in flying and his summer mountain-climbing. But, despite the great hobbyist in the White House, the directions specifically state that he refrain from telling that he collects stamps or does knitting.

All these details will be translated at the Civil Service Commission into the code of holes in the punch card. Then when the Army needs a flock of electrical engineers, or the Navy needs draftsmen, the electric fingers of the sorting machine can easily pick out qualified employees where they are located in those offices that can afford to spare men for transfer.

Personnel records can then be pulled out for study, individuals interviewed,

and transfers to other jobs expedited.

Eventually, perhaps, this mechanized placement system devised to meet the urgencies of a mechanized defense will be expanded to make the selection of new employees for the Government Service simpler and more efficient.

Practically every applicant for a Civil Service job must take a general intelligence or IQ test, known as a general adaptability. About three different grades of this test, for different levels of intelligence would most likely serve for all of the thousands of jobs offered under Civil Service.

Suppose a girl takes an examination today for file clerk. She takes the adaptability test and also takes some special

tests designed to measure her special fitness for the job of filing.

Her scores on these tests, together with information about her previous experience and training, can be punched on one of the new personnel cards.

Next year, perhaps, she applies for a job as typist. Under the new plan as it will probably be developed, she need not take another adaptability test. Her ability on that sort of thing is already a matter of record. All she would have to do is to appear for a typing test, and her new score on the typing would go right on the same card with her record as a good file clerk.

Time and money would be saved for both applicant and the Government. And the appointing officer would be able to locate this girl without searching two or more eligible registers.

But that sort of plan is for the future. Uncle Sam is concentrating right now on speeding up his defense program. And there are plenty of well qualified men and women right in the Government service if they can be transferred from non-essential activities to the places where the need is greatest.

Science News Letter, July 20, 1940

IDENTIFICATION

Radio Operators May Be Fingerprinted By Government

IF YOU are a radio "ham" and operate your own transmitter, you may have to register your fingerprints along with those of aliens at your post office.

The Post Office Department has been requested to take the fingerprints of all radio operators at the same time that they register aliens. As yet they have not accepted the invitation.

The alien fingerprinting, which is to start on August 28, will be done in post offices and possibly also in schools or other places. It is expected that standard fingerprint cards for all ten fingers will be used, such as those already in use for criminals by the Federal Bureau of Identification. Aliens' prints probably will go right into the regular files of the FBI.

The details of the plan have not, however, been definitely settled as yet. Probably black ink like printer's ink will be used.

Although the post offices are already taking fingerprints in connection with their postal savings accounts in some 690 of the largest offices, it is not anticipated

that the post office fingerprinting system will be used in registering aliens. For postal savings only the first three fingers of the right hand are printed. A stainless system developed about 20 years ago by the National Bureau of Standards is used instead of the rather messy ink. The applicant dips his fingers in a paste of lead soap and ferric chloride to make the prints which are then developed in sodium sulfide and sodium carbonate.

Fingerprints are also used for identification purposes by the Civil Service Commission, which fingerprints all Government employees under Civil Service. The Army, the Navy, Coast Guard, Marine Corps and the Veterans Administration identify their personnel by fingerprinting.

All applications for the soldier's bonus were required to be accompanied by the prints of the five fingers of the right hand of applicant. These were checked with the prints in the files of the Army. Then at settlement, the fingerprints were taken again to insure that the right person collected the money.

The U. S. State Department uses fingerprints in an unusual way. Passports for use of Americans in Europe these days must bear a fingerprint, but it is not the fingerprint of the person holding

the passport. It is the imprint of the thumb of an official in the U. S. State Department, and it is assurance that the passport is genuine.

Science News Letter, July 20, 1940

MEDICINE

Hormone Bank Treatment Gives "Miraculous" Results

Synthetic Chemical Buried Under Skin Relieves Case Of Muscular Weakness, Effect Lasting for Months

"CLOSE TO MIRACULOUS" results from the hormone bank treatment of the chronic progressive disease of muscular weakness, myasthenia gravis, are reported by Dr. Robert C. Moehlig, of Detroit. (*Journal, American Medical Association, July 13*)

The treatment consisted in burying under the patient's skin little pills of desoxycorticosterone acetate, a synthetic chemical believed to be the same as the cortical hormone produced by adrenal glands.

The pills or pellets of this substance act like a bank of the hormone material on which the body can draw for its daily needs. This treatment with the synthetic adrenal hormone chemical was first used for patients suffering from another ailment, Addison's disease, which is an adrenal gland disorder.

The case Dr. Moehlig reported was that of a 32-year-old physician. Like other sufferers from myasthenia gravis, this patient got out of breath, weak and tired on the slightest exertion. The history he

wrote of his own case states that he "could hardly raise his arms to shave or comb his hair. The weight of the head and shoulders and the effort to hold himself upright seemed intolerable."

He had trouble in swallowing and talking, and felt "utterly exhausted" and quite drowsy most of the time.

Injections of the synthetic hormone chemical definitely relieved the weakness and fatigue, starting five hours after the injection. The effect, however, was only temporary, so it was decided to give the patient a more lasting supply by implanting pellets of the chemical to create a hormone bank.

"The effect of the pellet implantations has been close to miraculous in its sustained and complete relief of symptoms," Dr. Moehlig states.

No symptoms of the disease were noticeable three and one-half months after the pellet implantation. The supply implanted last October was calculated to last 450 days.

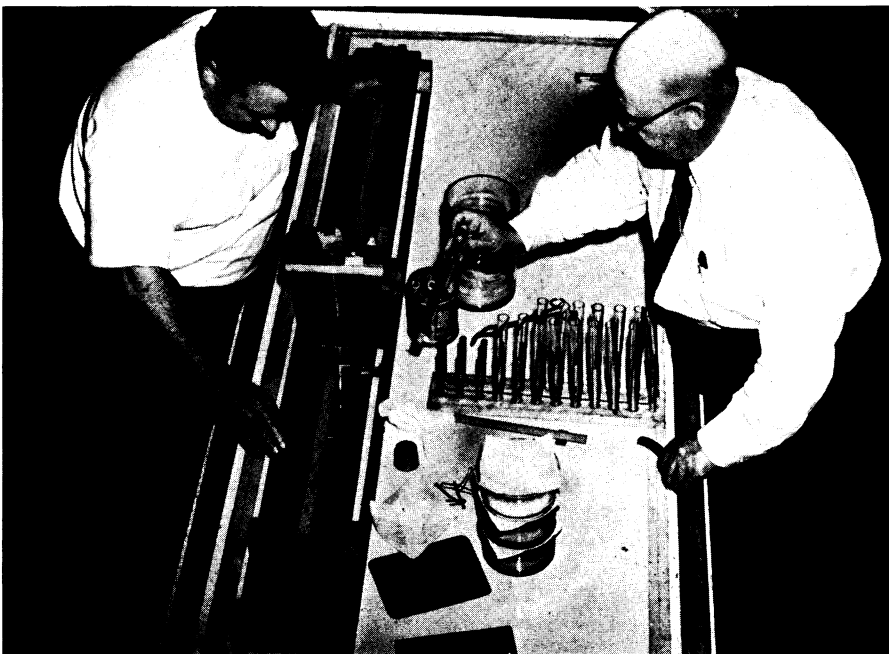
"Naturally," Dr. Moehlig cautions, "further experiences with other patients as well as the continued progress of this patient are desirable before final conclusions concerning lasting benefits are made."

Dr. Moehlig gives several reasons for trying the Addison's disease treatment in the case of myasthenia gravis. For one thing, loss of strength and fatigue are in a general way outstanding symptoms of both conditions, although in myasthenia gravis the tiredness comes only when the muscles affected by the disease are called on for sustained effort. The patient's past history, furthermore, indicated muscular weakness and a congenital predisposition to disturbance of muscle metabolism, and both the pituitary gland and the cortex of the adrenal glands are concerned with muscle metabolism.

Science News Letter, July 20, 1940

Glue made of potato flour is a German wartime product.

The explosive power of gasoline, fire chiefs were recently told, is 83 times that of dynamite.



AIR CONDITIONING FOR INSECTS

Because insect pest will not breed readily when the temperature is too high or too low, special air conditioning equipment devised by the General Electric Company has been installed at the New Jersey State Experiment Station, New Brunswick, N. J., to assure a supply for study. A temperature of 72 degrees is maintained in winter and 75 degrees in summer, while the humidity is kept at 73 per cent., just right for roaches. Dr. T. J. Headlee, head of the entomology department of the station, is shown above (right) with an assistant, studying some of the insects produced under these ideal conditions.

● RADIO

Dr. C. Hawley Cartwright, of the Massachusetts Institute of Technology, will describe "Invisible Glass" as guest scientist on "Adventures in Science" with Watson Davis, director of Science Service, over the coast to coast network of the Columbia Broadcasting System, Thursday, July 25, 4:00 p.m., EDST, 3:00 EST, 2:00 CST, 1:00 MST, 12:00 PST.

Listen in on your local station. Listen in each Thursday.