ing is made harder. Training flights are three times a day and the distance is longer and longer until five miles is attained by the end of the week.

Later, flights are less frequent but distances are increased gradually to 75 or 100 miles and then even longer.

Pigeons trained to fly at night are never flown in the daytime, because that would spoil them for night flying.

Even after years of experience, the birds never lose their fear of flying at night. But it is especially bad in young-sters. Two-week-old birds are released for exercise late in the afternoon so that they get back to the loft at dusk, or a little later. First long flights are started before dawn. The bird learns that if he only remains in the air long enough, the dark is gone and he can find his way home. Later he can complete the flight in darkness.

Night flying pigeons are highly directional, however. A bird taught to fly from the south is not reliable when flown from other directions. No attempt is made to deviate more than 45 degrees from the training course.

Pigeons are now subject to draft as are young men. The Army takes them from their owners and breeds them. The young are trained for Army service. But when the year is up, the parent birds go back home.

Latest development of Army pigeon training unfortunately cannot be used by civilians raising the birds, for it is wrapped in deepest secrecy. It is the remarkable method originated by Major John K. Shawvan for teaching the birds to fly two ways. Although armies have used homing pigeons for centuries, never before since Noah sent the dove out to

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DELIVERING MESSAGE

The new two-way pigeons will carry messages as far as from Washington, D. C., to Boston to a cage like this, deliver a message, pick up another and return. With the birds is Major John K. Shawvan, who originated the method of training these new two-way pigeons. All these pigeon pictures are official photographs of the U. S. Signal Corps.

return with the olive branch have birds been trained to carry a message from their home loft and return with a reply.

Now, pigeons can be sent to new locations to which they have not been previously trained to fly and will return

again to their base. They can even take orders to a parachute trooper dropped behind enemy lines and bring back his report without disclosing his presence to the foe.

Science News Letter, March 7, 1942

PSYCHIATRY

Military Authority Useful To "Steady" Nervous Soldier

THE MILITARY authority of Army doctors, if judiciously used, can "steady" a soldier showing signs of neurotic behavior, Capt. Robert P. Kemble, M.C., U. S. Army, told members of the American Orthopsychiatric Association meeting in Detroit.

This, however, apparently does not mean confirmation of a once-popular belief among laymen that military service should be prescribed to make a man of a timid nervous youth, for Capt. Kemble stated:

"In no way should these remarks be construed as advocating military service for psychoneurotics at any time. The Army has at hand the primary job of winning the war, rather than the treatment of psychoneurotics."

In civilian practice, Capt. Kemble pointed out, psychiatrists try to use as little authority as possible, seeking instead to develop the patient's independence to the point where he can take responsibility and make decisions for himself.

In military practice, on the contrary, the psychiatrist is faced with the question of how much psychiatric treatment "should be allowed to creep into one's authority."

The knowledge that the performance of duties will be required has a steadying



LUXURIOUS QUARTERS

Two-way pigeons of the U.S. Army have been trained to fly from mobile lofts in trailers like this that can be maneuvered in battle areas.

effect and in this way the military authority becomes effective treatment.

"The very clarity and simplicity of

military regulations and the fairness with which they are applied offer some measure of security to those who need it," Capt. Kemble declared. "Each commander can be a symbol of this authority and when confronted with neurotic behavior brief, clear presentation of the requirements, penalties, and alternatives should be helpful. Special liberties or privileges would tend to delay improvement, while risking dissatisfaction among other members of the command. On the other hand, the imposition of extra hardships or punishments risks the precipitation of acute crises or justified resentment. The procedures suggested are fully compatible with the commander's duties and the limited time at his disposal."

Science News Letter, March 7, 1942

Help Delinquent Children

BRAIN WAVE studies may help delinquent children, it appears from a report by Dr. R. L. Jenkins and Dr. B. L. Pacella of studies at the New York State Training School for Boys and the New York State Psychiatric Institute.

Such studies, they found, will detect those cases in which the delinquency is due to or aggravated by organic brain defect and for which the customary treatment for delinquency is not likely to succeed.

Most cases of delinquency, particularly of group stealing and kindred activities, do not suggest the presence of any brain defect and do not show a large number of abnormal brain wave records.

The abnormal brain wave records, indicating brain defect, appear frequently in children with assaultive tendencies resulting from emotional instability, irritability and poor self-control and whose school maladjustments are related to restlessness, distractibility, short attention span, inability to concentrate, inability to adapt to a program of high restricted activity and sedentary study.

A "defeatist attitude" is not justified merely because of an abnormal brain wave record, the psychiatrists declared. These delinquent boys are often capable of responding in some degree to treatment, but may need special and longer treatment than other delinquents.

Schools should take account, the psychiatrists urge, of the "handicapped personality" as well as of handicaps in seeing, hearing and heart action. The brain wave records may become a valuable aid in recognizing many of these handicapped personalities in time.

Science News Letter, March 7, 1942

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