

EFORE long, congress willing, it will be possible for enlisted men and officers of regulars, reserves and National Guards to receive vocational training of a high degree in connection with the millary training which is essential for the soldiers.

Hereafter, again congress willing, the young men who enlist in the regular army of the Unit-

ed States will receive instruction which will in a double sense fit them for their country's service. If the call ever should come again for soldiers to take the field the youths who have been given this training will be ready to answer. When their terms of enlistment are up they will be fitted for that particular vocation in civil life upon which choice has fallen. The entrance into the working life of the country of these young men who have finished their vocational training, it is promised, will benefit the country in the times of peace, as their military training will benefit it in the possible time of war.

At Camp Humphreys, Va., there is now under development a project known as the "New Engineer School and Post and College of Military Research." Admittedly this is a cumbersome title. and one which would benefit by elision in behalf of brevity. This school is wonderfully planned. This is none too high praise. It is the heart son of officers of the army, regulars and National Guardsmen, who have studied the situation, present and future, from every possible viewpoint of the service and who have agreed upon plans for this school of the future. In fact, this institution at Camp Humphreys is a school of the present, for there for a long time young men have been undergoing vocational and military training.

It is the intention to make the school a permánent one in order that every officer and enlisted man may become skilled in those vocations which have in them the possibility of double servicearmy service and civilian service.

One of the faults which men have found with the regular army service of the United States in time of peace has been that it has fitted officers and men only for the life military. There have been parents who have thought, not entirely rightly however, that an enlistment in the regular army of the United States in time of peace was tantamount to time wasted so far as preparation was concerned for usefulness in civil life. If the army students of today are allowed to have their way the day soon will come when the boys of the country can seek the army with a certainty of securing a training which will enable them at the time of the expiration of their enlistments to enter the civilian field certain that they have in them the foundation knowledge of success.

The school at Camp Humphreys will be an engineer school, but it will supply courses to which men of other branches of the service can be sent to get that training which is not supplied by the schools of their own branches and which help to fit them not only for the army, but for civilian employment. It is the intention of the government to establish other schools than that at Camp Humphreys, but that institution probably will be much larger than any of the others, and in a sense be all embracing.

The site of the school has all the attractions that nature can give it. It lies not far from the city of Washington. It has the necessary road, rail and water connections, for the Potomac washes its shores, and, moreover, it has today on the ground serviceable material for instruction purposes in all vocational branches which cannot be duplicated in any other place in the world:

Camp Humphreys will be the engineer school of the army. Recently the school at what was ordinarity known as Washington barracks in the city of Washington was abandoned. So it virtually is certain that the corps of engineers, for it must have a school, will continue its educational work at Camp Humphreys at Belvoir-on-the-Potomac.

Credit goes where credit is due. Col. Richard Park, corps of engineers of the regular army, assisted by Lieut. Col. W. H. Lanagan, has had charge of the preparation of the general plan and detailed estimates for the establishment of this school. Maj. H. E. Kebbon of the corps of englneers has been chief of the architectural features. Capts. Mark Daniels and J. A. McLean and Lieut. J. W. Buston have supervised, and in fact have done the landscape work and the modeling. So far as the planning is concerned the work is done, and to some extent the execution of the plan already is under way.

In planning the layout of the present Camp Humphreys a large portion of the south end of the Belvoir peninsula was reserved for a permanent Post and school by direction of the chief of engineers, whose mind long had held a plan for the permanent establishment here of an institution of the corps of engineers. The secretary of war was heartly in favor of such a school and was so impressed with the natural advantages of the locality that he directed the chief of engineers to include in his plans a group of buildings for a college of military research.

Lieutenant Colonel Lanagan and Captain Danlels, who explained to me the functions of the school, who showed me the beautiful model of the completed institution, who explained everything in detail and who finally took me into every part of the beautiful government reservation which is to be the school site, paid the highest tribute to the constructive genius of Col. Richard Park and other officers associated with him in the labor of hrenaration and execution. As for Colonel Lans-



these two officers have given of their best and are still remaining in the service, despite the calls of their business in civil life, to forward the project which has as its essential element military plus a high grade of civilian vocational education for the youth of America who may become officers or enlisted men of the United States army.

Last June I was at West Point, where I witnessed the presentation of diplomas to 250 young second lieutenants of the army who after a two years' course at the academy had been sent to Camp Humphreys for vocational training. They returned to West Point for the purpose of receiving their diplomas. So it will be seen that this school at Belvoir-on-the-Potomac has been in operation for some time.

Even in its preparatory stages this school not only has instructed young officers of the army, but hundreds of enlisted men. They work in machine shops, in lumber camps, for the peninsula is heavily wooded; in carpentry, in printing, in map making, in blacksmithing, in railway construction and railway operation, in electricity, and in fact in all branches of industry which are serviceable in civil life as in the army. The completion of the school as outlined will give to an officer, regular, reserve or National Guard, and to the enlisted man that rounded-out vocational education which it will be difficult to get elsewhere.

Here is every necessary manufactured product of the war time. Everything that engineering ingenuity has produced is here, one might say, as a kind of educational sample. Camp Humphreys is a storehouse of the material necessary for instruction along nearly every line of military and civilian effort.

Appropriations are needed to carry the work at Camp Humphreys to conclusion. Congress has been asked for money and the probability is that it will be forthcoming. No one knows today whether the United States is to have any form of universal military training or not, but if the decision shall be in its favor young men who from year to year enter their country's service for field training will be given an opportunity to benefit by a training at this Potomac school.

The students who thus far have been under instruction at Camp Humphreys, officers and enlisted men alike, have started at the beginning of things. The West Point classes went into the machine and carpenter shops, laid tracks, did section-hand work and all the other things necessary to give them a practical knowledge of the things useful to them in their soldier profession or later in any profession or trade or business which they might enter on return to civil life. It has been a school of hard work, of regular living, with a sufficient amount of recreation, and with things so well balanced generally as to promote the normal working and "recreating" lives of men.

There are broad-guage and narrow-gauge railroads in operation at Camp Humphreys. There are many army trucks, armored trains, signal, searchlight, and flash range apparatus; forestry study, lumbering, bridge laying, and all other facilities for training on a broad scale.

The very character of the terrain and the ample timber supply at Camp Humphreys will allow the development of field fortifications on a large scale and under varied conditions. Roads already available, from footpaths to modern great highways, furnish the fields for the practical study of communication which forms such an important part of the duties of engineering troops in the field. Five miles of standard-gauge railroad and 20 miles of narrow-gauge or combat railroads, together with warehouses and depots cover in all their operations the functions of the service of

Adequate areas for target practice and for the use of gas are already developed. The water supply is plentiful and of excellent quality. The climate is healthful, and mild enough to make field work practicable during the entire year. An area ten miles square is large enough for maneuvering large bodies of troops and is sufficiently varied in character to cover the wide range of field conditions, including flat, open country, rolling ground, wooded areas, valleys and ravines.

Camp Humphreys will be an engineer school, a term which is used to embrace all the phases of engineering training. There will be an institution for post graduates of the military academy and of civil institutions to prepare them for the work of the corps of engineers. The course will require two years and will cover many subjects which can be grouped under these heads: Military, military engineering, civil engineering, electrical and mechanical engineering.

There will be a cadet school for the completion of training of cadets who have not completed the full course at the military academy; a school for reserve and National Guard officers; a school for line officers; a correspondence school for reserve and National Guard officers, covering the duties of engineer officers of the various branches of the reserve and National Guard. Naturally a large

centers on what it can do for enlisted men as well as for officers.

The engineer trade school which is to be established will embrace all these branches: Blacksmith, carpentry, drafting, surveying, electricity, gas engines, automobiles, lithography, steam engines, masonry, photography, plumbing, rigging, stenography, oxy-acetylene welding, machine shop work, railroad operation and camouflage.

A complete model has been made of the proposed school and outlying accessories. For the College of Military Research there will be one administration building; four large central buildings, respectively for records, statistics and mechanical and electrical laboratories; four smaller buildings, one for chemistry, one for physics, and two for lecture rooms; one library building, and a village of 250 separate houses for officers, churches, club, garage, playgrounds, and all necessary utilities.

In addition to these buildings and properly grouped there are to be one academic building. and two recitation buildings, an auditorium, a museum, a library, laboratory and other structures. Buildings corresponding in size and in equipment and grouped so as to insure uniformity coupled with beauty will be necessary for the school directly connected with the vocational training of the enlisted men and the officers.

It has been evident for some time that the attention of the military authorities is to be given in the future to the vocational training of young men, to be carried on side by side with their military instruction. The school at Camp Humphreys, as has been said, is not the only school which it is intended to establish, but it probably will be in a sense the parent school and the one which will furnish the facilities for certain training which cannot be secured at schools of the other branches of the service.

Men who already have attended the school at Camp Humphreys have spread its fame as an educational institution. In the words of Col. Richard Park of the corps of engineers, who has had this project at heart, and who worked daily and nightly to perfect it in every detail:

"It will be the function of the trade schools not only to develop the skilled personnel needed for miltiary work, but also to insure every soldier a thorough training in some trade which will be a benefit to him after leaving the service. This will attract a much better school of recruits under the volunteer system of training and will be an important factor in the maintenance of morale under a system of universal military training."

No one knows how large a force it will be necessary for the United States to maintain for purposes of defense and preparedness, but whether the force be large or small the evident intention of the government authorities is to see to it that men who enter the service shall have an opportunity to educate themselves along lines other than those which are purely military.

(Copyright, 1919, Western Newspaper Union) BONAR LAW AN IRON MERCHANT.

Mr. Bonar Law, despite his name, is not in the long list of men who were in the legal profession before taking up politics. He was a Glasgow iron merchant, a keen business man, and he established his reputation at Westminster in a single speech.

One of his most remarkable faculties is his gift for memorizing. This applies particularly to figures, and he has confounded many an opponent by correcting him, from memory, on some vital point of statistics. He can store more figures up in his brain than the average man could write in a notebook.

But perhaps his most valuable quality is that of "sticking it." He has stuck to his job more than once while suffering from personal sorrows which would have bowled over less resolute men. -Answers, London.

THE YOUTHFUL MALADY.

"Pax is a Latin word meaning peace." re marked the erudite visitor, as he gazed about to see if anybody was properly impressed with his knowledge.

"If 'that's the case," the facetious feller suggested, trying to make his voice heard above the sound of a piano player, a talking machine, four drums, two horns and a squeaky floor board. "I arise to say that there is likely to be small pax in this family for some time."

FRESH DISCOVERIES.

"But why," asked the horse-faced party, "do you persist in believing the worst about the Ger

"I don't." responded J. Fuller Gloom. "Jus when I think I am believing the worst I learn something still worse about them."-Kansas City

ABOR SITUATION

improvement is Reported by **Bureau of Crop Estimates** After Investigation.

WAGE RATE NOT CONSIDERED

Actual Supply of 1919 Was 83 Per Cent Against 72 Per Cent One Year Ago-Less Favorable on the Atlantic Coast

Prepared by the United States Department of Agriculture.)

Improvement in the farm labor situation this year over 1918 is reported by the bureau of crop estimates, United States department of agriculture, after investigation in all agricultural counties of the United States, By improvement is meant net increase of supply and consequently more labor for planting, cultivating and harvesting in relation to the work to be done. Wage rates were not included in the investigation.

Improvement in 1919.

Stated in percentage of a normal labor supply as related to a normal demand for labor, the actual supply of 1918 was 72 per cent and of 1919 it is 83 per cent-still inadequate without greater than normal dependence on machinery and animal, tractor and motor power, and without more than usual labor by farmers and their families. However, the improvement over 1918 is considerable.

In both years the groups of states that were and are provided with labor in relation of supply to demand, less than, or at the most equal to, the average for the United States, are the North Atlantic, the South Atlantic and the South Central.

Among these three groups of states, the greatest improvement is in the North Atlantic and the least is in the South Atlantic, and these extremes of high and low improvement are not equaled by the North Central and Western states, in each of which the average improvement is almost the same as that of the entire country. The improvement is evenly distributed throughout all state groups, except the North Atlantic states, where the gain is twice as great as in each of the other groups of states.

Situation Is Worse.

Apart from tendency toward relief from labor scarcity from 1918 to 1919, the situation this year is less favorable on the Atlantic coast, from New England to the South Atlantic states as a group, than in the states west of the Appalachian mountains as groups, and 12 feet for the framework; 2 pieces in this long strip of coast the situation is worse in the South Atlantic group of states.

ESSENTIAL FOR LIVE STOCK

Fences Should Be Made Tight-Have Permanent Pastures and Keep Only Purebred Sires.

(Prepared by the United States Depart ment of Agriculture.)

Where live stock is a factor on the farm, make every field hog-tight and sheep-tight; have thoroughly good permanent pastures; grow leguminous crops; build a silo, and keep only purebred males. These five things are absolutely essential in the economical production of live stock. Of course this program calls for some labor and expense, but the permanent condition of prosperity in the sections devoted to live-stock production is proof of the good profit derived therefrom.

STRAW IS QUITE VALUABLE

Can Be Used as Roughage in Wintering Stock-Use It Liberally for Bedding.

(Prepared by the United States Depart-

ment of Agriculture.) Straw is too valuable to be allowed to remain unused. Fresh oat straw, and rye, followed by cotton or grain. as well as wheat straw, can be used as a roughage in wintering stock. It is also advisable to use it liberally as bedding for farm animals as it adds to their comfort and absorbs the liquid part of the manure which is the most valuable portion.

ASHES GOOD AS FERTILIZER

On Account of Scarcity of Coal Considerable Amount of Wood Must Be Used This Winter.

(Prepsed by the United States Depart ment of Agriculture.)

On account of the scarcity of coal there will probably be a large amount of word used as fuel this winter. Use all the waste timber, dead and dying trees for this purpose and be sure to conserve the ashes for garden fertilizer. They are rich in plant food, particularly potash.

MAKE MOST OF IMPLEMENTS

Average Farm Tool is Only About Half Worn Out by Use Alone-Keep Machinery Busy.

(Prepared by the United States Department of Agriculture.) The average farm implement is only rorn out

PORTABLE HOGHOUSE HAS ITS ADVANTAGES

By Aid of One Horse It Can Be Moved Around Farm.

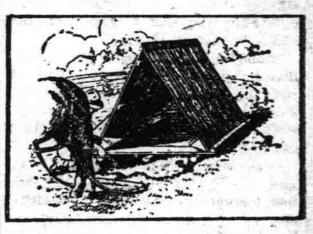
Farmer May Construct A-Shaped Pea for Pigs in His Own Back Yard-Ground Underneath Is Kept in Fertile Condition.

A portable hoghouse, fashioned like a tent for summer camping, and transported from place to place by means of a chain and single-tree, is the latest oddity in hoghouse construction. Its quaintness, however, does not argue against its practicability. The farmer may construct this A-shaped home for piggy in his own back yard with the proper specifications and materi-

It should be built of 1-by-12-inch plank. The opening should face south. The floor is 8 feet wide and 6 feet from front to back, nailed to three runners or skids. The skids may be built of lumber or poles 6 inches in diameter and flattened on one side. to which the floor is nailed. A hole bored through the front end of the outer skids will give access to the chain and single-tree, to which a horse or team is hitched.

A piece of 2-by-4-inch material supports the outer edges of the top of the floor to prevent the house from spreading at the bottom.

The sides of the house are built of six pieces of 1-by-12-inch plank 8 feet long, nailed to a piece of 2-by-4 lying flat 9 inches from the top of the plank, another 31/2 feet from the top, and a



Hitch Horse to this Pig Pen and It Can Be Conveniently Hauled Anywhere.

piece 2-by-8 nailed edgewise 11 inches from the bottom. A right-angle block of 2-by-8 inch will serve as a brace at each end of the under side of the

The long piece of 2-by-8 will serve as a "safety-first" measure for piggies whose careless mother would just as soon flop down on her brood as in a puddle of mud.

The materials required are 12 pieces of 1-by-12-inch by 16 feet for the sides. back and floor of house; 9 pieces of 16-foot batten; 3 pieces 2-by-4-inch by 2-by-8-inch by 12 feet for the rail or guard; 1 piece 1-by-6 inch by 16 feet for the saddle-boards; 3 poles for skids; nails. The cost will probably

be about \$12. The advantages of a portable horhouse are apparent. The house can easily be moved from spot to spot, permitting the ground underneath to keep in a fertile condition. The pigs enjoy being moved about and reciprocate by taking on flesh.—S. R. Winters, in Popular Science Monthly.

COVER CROPS SOIL BUILDERS

Three South Carolina Farmers Co-operating With County Agent-One Good Rotation,

To build up thin soil is a problem which demands the attention of the county agent in Lexington county, South Carolina. Three farmers in one community are co-operating with him by growing cover crops, and are conducting demonstrations extending over several years. One of these men, who has been working on the subject for five years, has followed this rotation on one piece of land:

Corn and velvet beans or cowpeas followed by small grain, followed by cowpeas after grain has been harvested, then crimson clover, or hairy vetch

This rotation has been kept up until the land, which was very thin, is now producing one and one-half bales of cotton an acre.

PLOW WHEAT STUBBLE DEEP

Weed Seeds Are Buried and Most of Them Destroyed-Flies Cannot Crawl to Surface.

As soon after harvest as possible all wheat stubble should be plowed deep. This buries the weed seeds which are in the stubble and most of them are destroyed. The small, delicate files cannot crawl to the surface when they are buried under more than five or six inches of compact and pulverized soil. The plow should therefore be followed with a harrow, drag or disk, says the University of Missouri College of Agriculture.

DAIRYMAN NOT SOIL ROBBER

He Not Only Studies How to Feed His Cows, But Also How to Maintain Fertility.

(Prepared by the United States Department of Agriculture.)

The dairy farmer not only studies about half worn out by use alone. The how to feed his cow, but how to feed rest of the wear is due to rust and de his land. He is not a soil robber, as cay. Make the greatest possible profit he realizes that the farmer who reout of machinery by using it continu- duces the fertility of his land robe usty for profitable work until it is without reason, since he steals from