

WORK OF THE COMMITTEE ON CLASSIFICATION OF PERSONNEL IN THE ARMY

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Purpose of Personnel Work—True efficiency in war, as in industry, consists largely in getting men into the right places—in assigning them to those positions where each can serve with greatest effectiveness. Owing to differences in experience, technical skill, specific training and temperament, a man may be worth in one position many times what he is in another. Intelligent personnel work is intended to match each man's abilities with his task, to place him in that position where he is most valuable.

Progressive industrial concerns now appreciate the necessity for special departments to exercise this direction over their employees in order that they will be of greatest value to the company.

When war was declared, the Secretary of War and The Adjutant General recognized the necessity for determining the abilities of the drafted men of the Army in order to place them where they could serve most effectively. The construction expert, for instance, is needed in the Engineers, not in the Cavalry; the drill press operator in the Ordnance, not in the Quartermaster's Department; the map maker in the Signal Corps, not in the Infantry.

The task of analyzing the men, of classifying them by trade and by specific occupations within the trade, and of assigning them to those branches of the service and to those positions in the regular infantry divisions where they can serve best—this task was assumed by The Adjutant General with the assistance and co-operation of The Committee on Classification of Personnel in the Army.

The Committee.—The Committee on Classification of Personnel in the Army is a civilian body created by the Secretary of War on August 5, 1917, and working under the jurisdiction of The Adjutant General. Its general function has been to furnish counsel and to carry on research work concerning personnel problems.

The Committee has been composed of psychologists interested in individual differences and of employment managers

The Director of the Committee is Dr Walter Dill Scott, Director of the Bureau of Salesmanship Research at Carnegie Institute of Technology, Pittsburgh, Pennsylvania. It has had in its service for longer or shorter periods of time the majority of the leading employment managers in the country. And it has used in addition the services of many prominent sales managers, specialists in job analysis, and statisticians.

The Committee acts in an organizing and advisory capacity. Its relation to the Army is much the same as that of an Expert Public Accountant called in by an industrial concern to install a new system of bookkeeping. When the system is installed and properly operating in an Army Division, and when the Military Officers are thoroughly trained to assume full charge, the Committee withdraws and leaves its operations entirely in the hands of the proper military authorities, except so far as the Secretary of War and The Adjutant General may retain its services as a business house will retain the services of the public accountant after his system has been installed in order to make sure it continues its functions properly.

The Personnel Work—Through the instrumentality of the Committee, an organization has been built up in all the army divisions in this country by which all enlisted men and commissioned officers are classified according to their occupational qualifications and also in the case of commissioned officers according to their military qualifications. The cards upon which these records are entered are filed for the enlisted men in a Division Personnel Office and for the officers in the office of the Commanding General of the Division. Because of this system, thousands of men have been assigned to specific work in the army for which their previous experience especially fitted them. A good example of this service comes from one of the Southern cantonments. A Colonel of a regiment of engineers came to the Division Personnel Officer for help in finding a man for the most responsible position an enlisted man can fill, that of Regimental Sergeant Major. The Colonel was looking for a mature man of commanding presence and force of character, with military experience. He wanted some one who had had clerical experience, preferably as an accountant, and who also had had engineering training. The Personnel Officer found him a man who met even these varied specifications. As a lad this man had enlisted in the Navy and risen to the rank of Machinist's Mate. He had then left the Navy and worked for two years or so as a stenographer and bookkeeper; and at the time of his enlistment in the National Guard Army last fall he was a senior in the Engineering School of

Tulane University. Moreover, he was a *private in that Colonel's own regiment.*

Up to the present time a man has been classified on the basis of a personal interview. The interview was first conducted by the company commander, but after a fair trial that procedure was discontinued. It is now made by officers who have been especially instructed for this work and are referred to as members of the interviewing Board. This system has given very satisfactory results. In one transfer of 800 men to a Pioneer regiment it was estimated that 97% of the men came up to the specifications of the Colonel. But in some cases where specialists were needed the system has not worked so well

The Trade-Test Division—In order to improve still further the system it is contemplated to establish in each cantonment *trade-tests*. A series of carefully graded questions are being selected in such a way that a novice will be unable to answer any of the questions, an apprentice a few only, a journeyman most of the questions, and an expert all of them. In addition, performance tests are being developed so that the interviewer's estimate of the man's fitness along any occupational line will be based upon actual demonstration of his handiwork. A small hand book, "Aids for Interviewers" (Form T T. 1., Preliminary Edition), prepared by Mr. Mark M. Jones, has already been distributed to Personnel Officers. Two groups of experts are being employed in the Trade-Test Division of the Committee on this work—the first in developing the questions and tests on the basis of the best sources of information available in the country; the second devoting its energies to careful and painstaking try-outs of the tests upon groups of apprentices, journeymen and experts so as to ascertain just how they work out in practise.

Another phase of the work of the Trade-Test Division has been the development of a book, "Trade Specifications," by Mr. J. J. Swan, which gives an exact comprehensive definition of some 600 different trades together with a statement of the trades which can be drawn upon as substitutes. A comprehensive index to this book makes it possible to locate, regardless of the term that may first be thought of, any one of the specifications. A simpler index is also furnished Personnel Officers for reference when interviewing men. This index of occupations has become the standard list of terms by which occupations are referred to by all army personnel officers, particularly when submitting requisitions to the War Department.

Tables of Occupational Needs of Units in a Division.—In

order that Divisional Personnel Officers may be more thoroughly informed as to just what types of skilled and semi-skilled men are needed in the various units of a division a series of tables have been prepared showing just what each unit requires. For example, Table 23-b shows the needs of a radio company of a Field Signal Battalion. In one column is given the various grades and duties of the 75 men according to the Tables of Organization and in a parallel column is given the civil occupation which most nearly fits the man to undertake the military duty, thus

Table of Organization	Skilled	Partly Skilled	Occupation and Code
1 Master Signal Electrician	1		Radio Operator and Constructor (31 w plus wc) plus engineering knowledge
6 Sergeants, 1st Class			
1 First Sergeant			
5 Chiefs of Sections	5		Radio Operator (31 w)
9 Sergeants			
1 Mess Sergeant	1		Caterer (40 c)
1 Supply Sergeant	1		Merchant or stockkeeper (42, 18 s)
7 Company Duty	7		Radio Operator (31 w)
15 Corporals			
(1 Company Clerk)	1	1	Clerical worker who can type-write (35 g plus 39 t)
		1	General mechanic with small apparatus experience (6 mc)
12 Company Duty		12	Radio operator or Telegrapher (31 w, t)
	etc		

These tables represent a vast amount of work, being based on the reports of many officers in Washington and in the field, including French and English officers. Dr W. V Bingham is largely responsible for this present form.

Extension of Work to Staff Corps—This personnel work is rapidly being extended to the Staff Corps troops. On March 10th, the system was in operation in the Coast Artillery, a large part of the Quartermaster Corps, including 2,000 civilians at Washington, portions of the Signal Corps, and plans were being made for similar work in the Ordnance Corps. It is expected that the system will be completely installed in the Quartermaster and Signal Corps in a very short time. Representatives of the Committee in Europe are planning for its adoption throughout those units of the army in France which sailed before the system was installed in them.

Central Personnel Bureau—In conjunction with the occupational classification of enlisted men there has been estab-

lished in Washington a Central Bureau which receives reports twice a month as to the number of skilled and semi-skilled men in each occupation, in the National Army, National Guard, and the Regular Army camps. This Central Bureau has furnished the information as to where skilled men were to be found in the army on the basis of which the General Staff has organized a large number of technical units for such assignments; 109,487 men have been individually selected by Division Personnel Officers on the basis of their occupational fitness. Of this number 59,793 have been handled through the Central Bureau since its establishment. These totals do not include requisitions for men which did not specify occupational or military qualifications.

This number includes over a hundred capable physicists and meteorologists imperatively needed by the Aviation Section; chemists for gas defense work, surgical instrument repairmen; bacteriologists (including one of the ablest men in America for the particular duties required of him by the Sanitary Corps in France), refrigeration experts for the food service of the Quartermaster Corps; 5,000 mechanics and technicians for the Aviation service, and two-thirds that number for the Land Division of the Signal Corps; 480 crane operators, 1,230 forsters, and thousands of railroad builders, railway shop mechanics, and other workmen for Engineer regiments already overseas; 1,600 accountants, inspectors, machinists, gunsmiths and other ordnance specialists; 275 French-speaking chauffeurs, and an entire regiment of 2,600 French-speaking men for Army Headquarters, to serve mainly as military police.

The Central Bureau has also compiled statistics showing the resources of the army along occupational lines. These figures have called attention to shortages along certain lines, such as, airplane mechanics, auto repairers, blacksmiths, canvas workers, farriers, gas engine repairmen, harness makers, etc.

Committee on Education and Special Training—In order to meet these deficiencies through the technical training of men a Committee on Education and Special Training was appointed by the Secretary of War on February 10. The Committee is composed of Col Hugh S. Johnson, deputy provost marshal general; Lieut. Col Robert I. Rees, of the General Staff; and Major Grenville Clark, of The Adjutant General's Department.

The five advisory members of the Committee are: Dr. Charles R. Mann, of the Carnegie Foundation for the Advancement of Teaching and the Massachusetts Institute of Technology; Dr. James R. Angell, of Chicago, Dean of the faculty

of the University of Chicago, Mr J W Dietz, of Chicago, Director of Education, Western Electric Company, President of the National Association of Corporation Schools, Mr James P. Munroe, of Boston, a member of the Federal Board for Vocational Education (which appointment will include the interests of the trade schools and schools of secondary grade), and Dr Samuel P Capen, of Washington, specialist in higher education

“Under the direction of the Chief of Staff the functions of the committee shall be To study the needs of the various branches of the service for skilled men and technicians, to determine how such needs shall be met, whether by selective draft, special training in educational institutions, or otherwise; to secure the cooperation of the educational institutions of the country and to represent the War Department in its relations with such institutions, to administer such plan of special training in schools and colleges as may be adopted”

“It is estimated that within the next 6 months 75,000 to 100,000 men will be given intensive training in schools and colleges. These men will be drawn from the armed forces of the Nation, the men now in training camps or about to be called thereto, and the registrants under the selective draft act. It is expected that most of the men selected for technical training will be taken from among the men who have registered under the selective draft law and who are awaiting training and the call to the colors.”

When a requisition is received at the War Department this Committee on Education and Special Training, acting for the Chief of Staff, determines whether the men shall be obtained from the Army in the United States, or through the selective draft, or otherwise. If from the first source, it determines in terms of the records of the Central Bureau from what divisions the men may be obtained, as described above.

The War Service Exchange—If the Committee on Education and Special Training determines that the men shall not be obtained either from the army or through the draft, it may turn to several sources. One of these is the War Service Exchange, another phase of the activity of the Committee on Classification of Personnel. This Exchange was organized by order of The Adjutant General on January 18, 1918. This is a directing agency for those desiring to enter the service whether in civilian, enlisted or commissioned capacity. The War Service Exchange is able to accomplish this because it is constantly informed of the personnel needs of the Staff Corps. A total of 11,196 written offers of service and 1,580 personal

interviews of a similar nature have been handled so far. Over 3,000 of these men have been placed in government service. The War Service Exchange also assists the Staff Corps in active campaigns to secure men of special abilities, through connections with Universities, Engineering Societies, Commercial Organizations, the Department of Labor, and other agencies of a similar character. On March 15th it took over the work of the Inter-Collegiate Intelligence Bureau. The War Service Exchange is in a sense a liaison agency between the War Department and the Department of Labor. It is charged with keeping informed as to such needs of the Staff Corps as the Department of Labor is prepared to supply through its Federal Employment Service and the Public Service Reserve. It is charged with reporting such needs to the Department of Labor.

Rating of Officers.—Another activity of the Committee on Classification of Personnel is the development of accurate methods for the rating of officers and candidates for commissions in the Officers Training Camps. This work is based on the rating scale devised by Dr. Walter Dill Scott for use in selecting salesmen under the auspices of the Bureau of Salesmanship Research at Carnegie Institute of Technology. The rating scale for officers was first used in eight of the Officers Training Schools, first series. Since then it has been adopted for all such schools and was used in connection with the third series in selecting candidates for the schools as well as for rating them while in attendance. Its use has been further extended so that all line officers in America are now rated by it, as well as all Coast Defense and Quartermaster officers. A somewhat different scale has been adopted and is now in use for all civilian employees in the Quartermaster Corps at Washington. At the present time other scales are being developed for use in the Signal Corps, Air Division, one for the pilots and observers and another for administrative officers.

Cooperation with the Provost Marshal General.—A plan for securing usable information concerning the nine million registrants was prepared and submitted to the Provost Marshal General and its provisions were partially embodied in the Questionnaire issued by the latter to the men within the draft age. The Committee also formulated plans for an occupational analysis and card index of all the registrants by which relative drafts could be made. In the main this plan is now being put into operation.

Army Paper Work.—A constructive study of army paper

work so far as it has to do with the personnel of the army was made. Suggestions for reducing this paper work are under consideration.

Intelligence Tests.—Assistance has been given to the Surgeon General's Department in devising and giving a series of general intelligence tests at four of the National Army Divisions. This work is now to be extended to the entire army. Record of the intelligence ratings is kept on the enlisted man's and officer's Qualification Card.

Selection of Aviators—Dr E. L. Thorndike has carried on an extensive investigation as to the relationship between success in flying and the items in the present application blank used by Examining Boards. The results are not at present available for publication. Further investigations are being conducted at present. It is believed that ere long a much more adequate method for the selection of aviators will be available whereby a larger per cent of men can be selected from the start who will make good in this very important phase of army work.

Work in the Navy.—Dr. Raymond Dodge has devoted his energies to methods of selecting and training men for certain specialized duties in the navy. Several such assignments have been successfully carried out, others are still under way.

The active members of the Committee on March 10th were:

Walter Dill Scott, Director, Bureau of Salesmanship Research, Carnegie Institute of Technology, Pittsburgh

E L Thorndike, Chairman Professor of Educational Psychology, Teachers' College, Columbia University, New York

W V Bingham, Exec. Sec, Head of Division of Applied Psychology, Carnegie Institute of Technology, Pittsburgh

J R Angell, Dean of the Faculties, University of Chicago, Chicago
R C Clothier, Director of Employment, A M Collins Mfg Co, Philadelphia

W R De Field, Superintendent of Systems, Montgomery, Ward and Co, Chicago

Raymond Dodge, Professor of Psychology, Wesleyan University, Middleton, Conn

Edward K Strong, Jr Professor of Psychology George Peabody College for Teachers, Nashville, Tenn

J B Watson, Major, U S R Signal Corps, Professor of Psychology, Johns Hopkins University, Baltimore

R M Yerkes, Major, U S R, Surgeon General's Staff, Professor of Psychology, University of Minnesota, Minneapolis, Minn

Inactive and former members are:

H L Gardner, Director of Employment, Dupont Powder Co, Wilmington, Del

J F Shepard, Assoc Professor of Psychology and Supervisor of Building Construction, University of Michigan, Ann Arbor, Mich
 L S Terman, Professor of Educational Psychology, Stanford University, Calif

Military associates of the Committee are:

R I Rees, Col., General Staff, U S , Grenville Clark, Major, A. G D U S R , E N Sanctuary, Major, A G D N A , L H Whitting, Major, A G D N A , B J Kempter, Capt, Artillery, N G ; J Perry Moore, Capt , A G D N A , S C Garrison, 1st Lieut , A. G D N. A

Civilian associates of the Committee are. 1. *In the Office at Washington.*

P J Reilly, Supervisor of Camp Work, Employment Manager, Denison manufacturing Co. Framingham, Mass

S. J Gummere, Office Manager, Paymaster, P B and W R R Co., Philadelphia

A C Robinson III, Supervisor of Personnel Statistics, Architect, Sewickley, Pa

R B Perry, Professor of Philosophy, Harvard University

W L MacCoy, Acting in Mr Robinson's place during his absence, Lawyer, MacCoy, Evans & Hutchinson & Lewis, Philadelphia

Miss M L Free, Assistant Office Manager, Asst in Psychology, Carnegie Institute of Technology, Pittsburgh

E S Robinson, Statistician on Rating Scale, Asst in Psychology, University of Cincinnati, Cincinnati

F Meine, Statistician on Rating Scale, Fellow in Psychology, Carnegie Institute of Technology, Pittsburgh

Miss M D Hughes, Filing and Accounts, Asst Registrar, Margaret-Morrison Carnegie School, Pittsburgh

2 *Supervisors in Camps*—The following employment managers have been used for varying lengths of time in installing and supervising the personnel work in the camps. Those starred have served at this writing four or more months.

C F Axelson, Northwestern Mutual Life, Chicago

Philip Brasher, Child Exploration Co, New York City

*Wm Clark, International Harvester Co, Chicago, Ill

N F Dougherty, Pennsylvania Railroad, Philadelphia, Pa

O L Davis, Jr, O L Davis Lumber Co, Trinidad, Colo

J W Dietz, Western Electric Company, Chicago, Ill

C R Dooley, Westinghouse Electric & Manufacturing Co, East Pittsburgh, Pa

A A Goes, Goes Lithographing Co, Chicago, Ill

R B King, Hyatt Roller Bearing Co, Newark, N J

*W S MacArthur, Armour and Co, Chicago, Ill

S B Mathewson, Southern Bell Tel and Tel Co, Atlanta, Ga

D J O'Connor, Swift & Co, Chicago, Ill

*R H Puffer, Larkin Co, Buffalo, N Y

W A Sawyer, American Pulley Co, Philadelphia, Pa

J E Sheridan, Crane Co, Chicago, Ill

- *A J Turner, Washington Water Power Co, Spokane, Wash
- *Kendall Weisiger, Southern Bell Telephone and Telegraph Co, Atlanta, Ga
- C J Whipple, Hibbard, Spencer, Bartlett Co, Chicago, Ill

3. *Civilian Associates in the Division of War Service Exchange*

- Winslow Russell, Agency Manager, Phoenix Mutual Life Insurance Co, Hartford, Conn
- J J Coss, Assistant Professor of Philosophy, Columbia University, New York In charge, Personnel Sub-Division of the General Administrative Division, Quartermaster Corps
- C W Jones, Mgr Service Dept, Erwin & Wasey Co, Chicago
- H F Magee, Charge of Contract Division, Phoenix Mutual Life Insurance Co, Hartford, Conn
- C L Procter, Traveling Salesman, Moore Grocery Co, Tyler, Texas
- S H Roth, Student at University of Chicago, and President of Undergraduate Council, University of Chicago

4 *Civilian Associates in the Division of Trade Tests.*

- M M Jones, Supervisor of Personnel, Thomas A Edison, Inc, Orange, N J
- J J Swan, Consulting Mechanical Engineer, Philadelphia, Pa
- L B Hopkins, Manager's Assistant, General Electric Co, Pittsfield, Mass
- Beardsley Ruml, Instructor in Psychology, Carnegie Institute of Technology, Pittsburgh, Pa
- T R Stocksdale, Engineer and Assistant Manager, W P Perry Electric Co, N Y
- J C Chapman, Professor of Educational Psychology, Western Reserve University, Cleveland
- T L Kelley, Assoc Professor Psychology, Columbia University, New York
- J A Balcom, Mechanical Engineer, Bayonne, N J
- W P Schatz, Secretary Manager of Middlesex County Farm Bureau, Waltham, Mass
- Max Watson, Civil Service Examiner, Sacramento, Calif
- T M De Blois, Production Engineer, Plainfield, N J
- R F Evans, Employment Manager, J H & C K Eagle, New York
- A D Fell, Business Training School Salesman, New York
- J N Field, Railroad Secretary, N Y
- A C Rader, Production Supervisor, Orange, N J
- L L Thurstone, Assistant Professor of Psychology, Carnegie Institute of Technology, Pittsburgh, Pa
- Rudolph Pintner, Associate Professor of Psychology, Ohio University, Columbus, Ohio
- T J Kirby, Professor of Secondary Education, University of Pittsburgh, Pa

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