

The Entire Purpose of the Navy Is to Fight, Says Roosevelt



Assistant Secretary of the Navy Franklin D. Roosevelt.



Chief of Division of Operations and his staff.

Left to right—Commander H. V. Butler, Capt. J. S. McKean, Lieut. Leigh Noyes, Capt. Volney O. Chase, Lieut. Randall Jacobs, Lieut. Wilson Brown, Jr., Rear Admiral William S. Benson.

Assistant Secretary Tells What the Present Administration Plans to Make the Nation's Ships and Men Ready for the Test

By FRANKLIN D. ROOSEVELT.

TO make clear to the public the long step forward made by the present administration of the Navy Department toward a proper and efficient military organization of the navy is not an easy thing to do. It involves a clear explanation of what a proper military organization is, and a still more difficult explanation of the unmilitary and unscientific organization which has hampered the Department ever since it was first created, over a hundred years ago.

I am afraid that even some of those who have paid special attention to the subject have not really gone to the bottom of things in their analysis of the situation, but have contented themselves with demanding a "General Staff" without a very clear idea in their own minds as to just what a General Staff should consist of or what it should do. In my judgment, and that of many of the ablest of naval officers that I have talked with, a General Staff, and by that I mean particularly one modeled exactly on the German General Staff, would be neither practical nor advisable for our

navy. I do believe, however, that the foundation principles on which the German General Staff is founded are essentially right, and that our navy can be organized on a real military basis, which means that everything which is done shall be part of a definite plan, worked out by trained naval officers.

This I think is perfectly practical of accomplishment. What is more, I believe that the first steps have already been taken and that we are nearer such an organization than we have been before in the history of the navy.

The entire purpose of the navy is to fight, but it is not an effective fighting machine if it is not prepared to fight at any time and if it is not as skillful in its fighting as its probable adversary. If it is inefficient it is worse, perhaps, than no navy at all, as its existence under such conditions gives a false sense of security to the country.

When fighting consisted of practically a series of hand-to-hand conflicts with clubs and axes, the organization of the fighting force and its

training in times of peace were relatively unimportant. To-day fighting has become a vast and complicated business and not only must the men engaged be as thoroughly and scientifically trained as any skilled mechanic, but the tools they use must be selected with equal care and be adapted perfectly to their purpose. In the navy men fight with ships and not only must the personnel be trained, but the ships themselves must be of such types and character as will prove most effective both in defence and offence.

To know what tools or ships are needed, to know how and where and when to use them most effectively, is more knowledge than any man can entirely master in a lifetime. He must begin where his predecessors left off, taking certain fundamental principles of warfare for granted, and after long and special training make it his life-work to seek to improve and adapt them to new conditions that constantly arise. Therefore the selection and organization of the navy must be handled by men of experience who not only make it a life study but who succeed in their office other men who

made it a life study before them. This has always been admitted and recognized in our navy. It is equally necessary that everything which is done, from the training of the men to the selection and the building of the various types of ships, shall be on some definite and regular plan, consistently followed out through the years, and only modified as new discoveries in weapons or ships are made.

The third necessity, that there must be some head, some supreme source in the navy organization which will dictate and lay down the work to be done, has been recognized perhaps to its fullest extent by Germany, but by almost every other country also in some degree or other except our own. Almost every Secretary of the Navy has realized the first two axioms, and a few the third, but no Administration until the present has actually created an exclusively military department of the navy which has been placed above all the other departments. This Department has been, as it were, a confederation of independent kingdoms, known as bureaus, each supreme in regard to its own affairs, spending money definitely appropriated to it by Congress, and with only one superior, the Secretary of the Navy himself, to direct its operations so as to make them harmonize with any methodical military plan.

There has been of late years, of course, a General Board, but this has been a body without legal authority and without any general definite work to do. It is really wonderful that the navy, under this plan of organization, has worked together for the common good as well as it has. It is hard to imagine a more unscientific or more unmilitary organization than this. Fortunately for the country the opinions of the naval experts on the General Board have been listened to with respect by the heads of the bureaus, and the various secretaries, with more or less success, have been enabled to keep all parts of the machinery working, after a fashion at least, in cooperation.

One of the bureaus of the navy has been called the bureau of navigation. It is charged with the education of officers, the assignment of details, the securing and training of enlisted men and all of the multitudinous duties connected with the personnel. As a part of that bureau there was until a few years ago a small sub-bureau known as the division of operations, which had charge of the movements of ships. The importance of this sub-division has been gradually recognized, as well as the fact that, should there be any one division of work superior to the others, that division should properly have under its immediate direction all ship movements in both peace and war.

The great step taken by the present Administration was to separate this division of operations entirely from the bureau of navigation, to give it a chief of operations, whose duty has already acquired many of the functions of a chief of staff, and to equip it with a force of officers and clerks necessary for it eventually to become what might be designated as the "military mind" of the Navy Department.

The ideal organization of a navy, broadly speaking from a military standpoint, is as follows: A body of the ablest and most experienced naval officers, freed from all routine duty, whose business it is to decide military policy. They must, first of all, by close contact with the State Department, ascertain the policy of the Government in its foreign relations. To know what kind of navy is needed it is necessary to know what a navy is required to do. To know what the navy is required to do, it is necessary to know the policy of the Government.

Having this information, it should be this body's duty to determine just what the navy will have to do to carry out the policy of the Government under all possible contingencies. Having determined all this, it is then in a position to determine what number of ships and what kind of ships are necessary to do the work.

This general policy and plan being decided, the creation of the rest of the machinery of organization is comparatively simple. The bureaus which

build the ships or which arrange for their building by private firms, the bureaus which provide the men and train them, the bureaus which supply the men with food, clothing and supplies generally, the bureaus which provide the ordnance and armament

become then like master builders given a definite set of drawings with instructions to proceed in the way which their own skill and experience have taught them to be the best, so long as the result of their work corresponds to the general objective before them. In fact a part of this machinery has also been recently established, for directly under the chief of the division of operations, Rear Admiral William S. Benson, U. S. N., is now an assistant for material, whose duty is to see that the construction of ships, the operation of yards, the repair of ships and all similar matters are worked out in harmony with the general plan.

It may be asked where the Secretary of the Navy or the Assistant Secretary of the Navy fits in and what schemes as this. The answer is very simple. In our country the Navy Department is, and always must be, cooperative with not only the President and the Administration, but with a Congress which changes in its composition every two years. The Secretary of the Navy being a cabinet officer is able to lay down to those who plan for the navy's development—the "general staff" or what you will—the fundamental policy of the Administration, which must be made the foundation of their plans.

He is also, better than any one else, in a position to know, both from the President and from Congress, what practical obstacles are in the way of doing what it is decided is right to do. Upon him must rest the responsibility of persuading Congress, by its appropriations and otherwise, to make the plans of the navy possible of accomplishment, and when unimpaired practical difficulties prevent the carrying out of these plans upon him must rest the responsibility of their modification to meet the actual conditions which exist.

The programme laid out by the military authorities of the Department must and should be always the ideal. The limitations imposed upon that programme by Congress represent that body's own views of what is practical. Upon the Secretary's shoulders rests the real light duty of reconciling the ideal and the practical as far as possible.

Of course we are a long way from such an organization as yet. We have made, however, I think, great progress.

Showing the workman how to save time and labor.

How great will possibly not be appreciated until years afterward when future historians will trace the beginning of the new navy and the new navy organization to the steps that have been taken in the last three years.

It is probably not generally realized that naval warfare has undergone a very great change in the past ten years, greater without much question than in the preceding thirty years. Its scope has been enormously increased, its instruments greatly multiplied. The world war has proved what only a few of even the naval experts foresaw. Therefore as practically no steps were taken up to three years ago to bring our own naval organization into line with the new conditions, all of the work has had to be thought out, tried out, systematized and put into practical working form within those three years. The ultimate goal has not been reached, we still must add the stepping stones necessary to reach the ideal. But we have at least undertaken to cross the stream and have made sufficient real progress to prove that the end can and will be attained.

How Scientific Management Plans to Help the Workman

By IDA M. TARBELL.

PLEASURE of leisure have always disliked the idea of the luxuries of life being used by people who worked with their hands.

The mistress of the house resents it if she sees on the hat of her cook a feather such as she wears. One of the trials of the automobile riding world is that this noble invention, which it seemed at the start, might be a permanent way of differentiating the leisure from the laboring class, is actually coming to be within the reach of even thrifty unskilled labor.

Science has no respect for the feelings of the leisure class. She is a natural democrat, leveling men's material distinctions as fast as they build them up, and labor rejoices. What shall we think, then, when labor and the "friends of labor" who are the first to rejoice that science has made a feather as good as the best for the cook and an automobile for her husband, actually can upon Congress to deny to labor the use of instruments of precision in studying the tasks of labor?

There is before Congress to-day a bill demanding that that body prevent the tasks of all men in Government employ from being put on a scientific basis. It asks Congress to compel them to remain unskilled and rule of thumb. It is a measure not unlike that which would deny to the teacher of the piano the use of a metronome or to the captain of a vessel a chronometer.

The stopwatch is the instrument Mr. Tavenner's bill attacks. Now what is a "stopwatch" and how is it used that a member of Congress should ask that harassed body to legislate it out of existence?

Read the bill and read too the remarks of certain Senators and Representatives, and you would suppose that the "stopwatch" was something like the old-fashioned "blacksnake" in the hands of the slave driver. According to the picture these gentlemen draw foremen go up and down the shop all day measuring with a watch the time in which people work. If they do not do their work in the exact period which has been fixed on goes a fine or they go. And this time the bill and the gentlemen declare to be the maximum in which the most capable man can do the work.

Now, this is an utterly false idea of the use of the stopwatch. If the maker of this bill and its supporters had studied the operation in which they would know this. Possibly it is too much to ask that members of Congress study on the ground the subjects on which they legislate, still, if they could be persuaded to do so, it might ease up the work of the body to which they belong. It might even prevent considerable work ever being put up to Congress.

But to come back to the stopwatch as it is used in the modern progressive shop into which scientific management has been introduced—a real scientific management, not a faked or superficial

Miss Tarbell Explains Working of the Stop Watch Method Now Being Attacked in Congress

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one, for there are as many kinds as there are kinds of Congressmen, kinds of "friends of labor," kinds of economists and kinds of Christians. This innocent instrument, which many classes of men bias for the help it has given them, is never used, let us say at the start, "in timing the workman while at his work," as Mr. Tavenner asserts. It is used purely as the only instrument of precision possible in analyzing and standardizing tasks. Every one familiar with shop and factory practice knows how generally it consists of pitching men and women into work for which they have had no preparation and, if they do not make good in a certain time, pitching them out again. The new system treats this as both stupid and inhuman. It declares that all kinds of labor are worth study.

Going into a shop for the first time the scientific manager begins by a study of the conditions under which a man works. His purpose is to cut out at the start all friction, delays and unnecessary operations, to standardize materials and methods. A very large per cent. of the gain in cases with which a task can be performed under scientific management is due to what the manager does before he touches a stopwatch; and if he does not do this preliminary work his time studies will be of little avail.

"No time study," declares one successful efficiency engineer, "which is not preceded by these preparations is of any value, and if time study ever comes into disrepute it will, in my judgment, be mainly due to the ill-considered effort to use it without proper preparation."

It is, then, not until the conditions are right that the worker is approached. The custom is for the expert who is installing the system to ask some one of the operatives to allow him to direct his task for a certain period. The two working together, the task is resolved into its elements. It is very probable that never before has the worker realized that the thing he has been doing, and which seemed so monotonous and uninteresting to him was really a complex performance, capable of scientific treatment, a thing both important and dignified.

The task divided into its elements, the man's motions as he performs each are studied. The object of this is to find the simplest way of doing each. If not infrequently happens that in studying these motions it is discovered that a man has been making a movement involving a severe muscular strain which can be entirely relieved by a very little change in the handling of his arms or hands. Again and again it is found that the chief cause of a worker's fatigue is the incorrect position in which he has been sitting or standing.

It is in the studying of the motions that the stopwatch comes in. It shows the relative time consumed in the different ways of doing the same thing. The quickest way, as shown by the stopwatch, is made the standard for each particular element of the task. The quickest way is naturally the easiest way as it is the one which demands the least expenditure of force.

When the proper time for doing each element in the task has been found the whole is added, and this sum, together with a liberal percentage to allow for friction, temperament and delays, is set as the standard time in which the work should be done by an average worker; not as the bill affirms, by the "most capable man." That would be monumental stupidity; the "most capable man" is but one in a thousand shop or office man, and even that one average man, and it is for them that time studies are made.

Note that so far for the work has been an investigation carried on with the help of an operative who consented to the uninteresting. When the result has been obtained, as explained above, that is what the standard time has been reached, the complete analysis, together with instruction for doing the task in the time fixed, are printed on cards which are issued to the workers, and an instructor, who is a regular officer in the new management, now ex-

plains to each operative how to follow the card; that is, they are taught the new way.

If they think any time fixed on their card is wrong they have the right to complain. The card frequently directs them to complain. Any one who knows what it means to introduce a new way of doing things into a shop will not doubt that they will take full advantage of the privilege. It is only when they question the time and ask for its verification or correction that they ever see the stopwatch; that is, the instrument is a tool of standardization, not a method of discipline or drive.

But because the task is analyzed and timed the general assumption has been, as in the Tavenner bill, that it was the purpose of forcing a worker to do his task more quickly, or, as the bill says, "to determine the time in which a piece of work can be done," not "the time in which it ought to be done." The gentleman should reverse his affirmation. The express and only purpose of time study is to find the proper time in which the average man ought to do the work, his conditions being right and he having the advantages of training. Again and again the speed under which men have been accustomed to work has been lessened because it was found not to be the most efficient.

But let the workman who has been under different systems tell what he thinks of it. The following letter, a voluntary offering to the discussion of the bill before Congress, is in substance what several intelligent workers in different industries have said to the writer.

"I started to work for a concern that was putting in a bonus system (Taylor system) in 1912. When I started to work the shop was still on day work basis and all the jobs were day work. I was at that time earning \$5 a week, but after a few weeks I was transferred to some part of the shop where they all worked on piece work.

"After a little experience I could here earn from \$11 to \$12, but when the whistle blew at night I would be all tired out, because I started in full speed in the morning and kept it going as long as possible, but I would always be too tired to go anywhere at night.

"After a while the company was ready to put the whole factory on bonus basis, and I started to work after the new system, together with the whole room. At first we did not like it at all, but after a few days had passed we all found that we were not only making the same money and doing the same quantity of work, but never got tired out as we used to, because there was a certain time set to do the operation in, which made us start in with speed that would enable us to finish the job in time, and by keeping it going with that speed all day we would most of the time produce more than we did after the piece work system, without being tired, and after the bonus system we could always be sure to get at least our day rate pay at all, but after a few days had passed we all found that we were not only making the same money and doing the same quantity of work, but never got tired out as we used to, because there was a certain time set to do the operation in, which made us start in with speed that would enable us to finish the job in time, and by keeping it going with that speed all day we would most of the time produce more than we did after 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