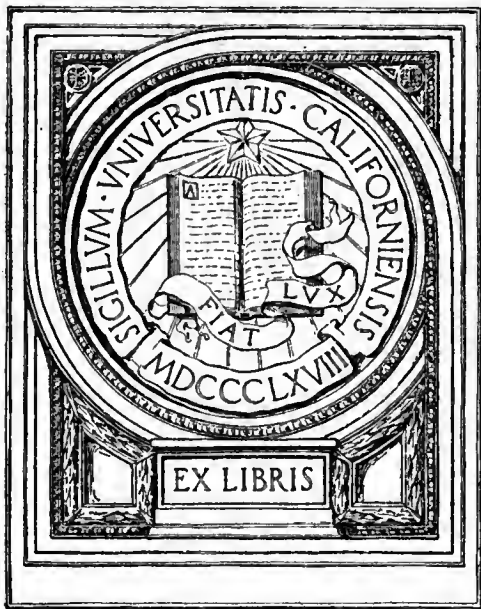
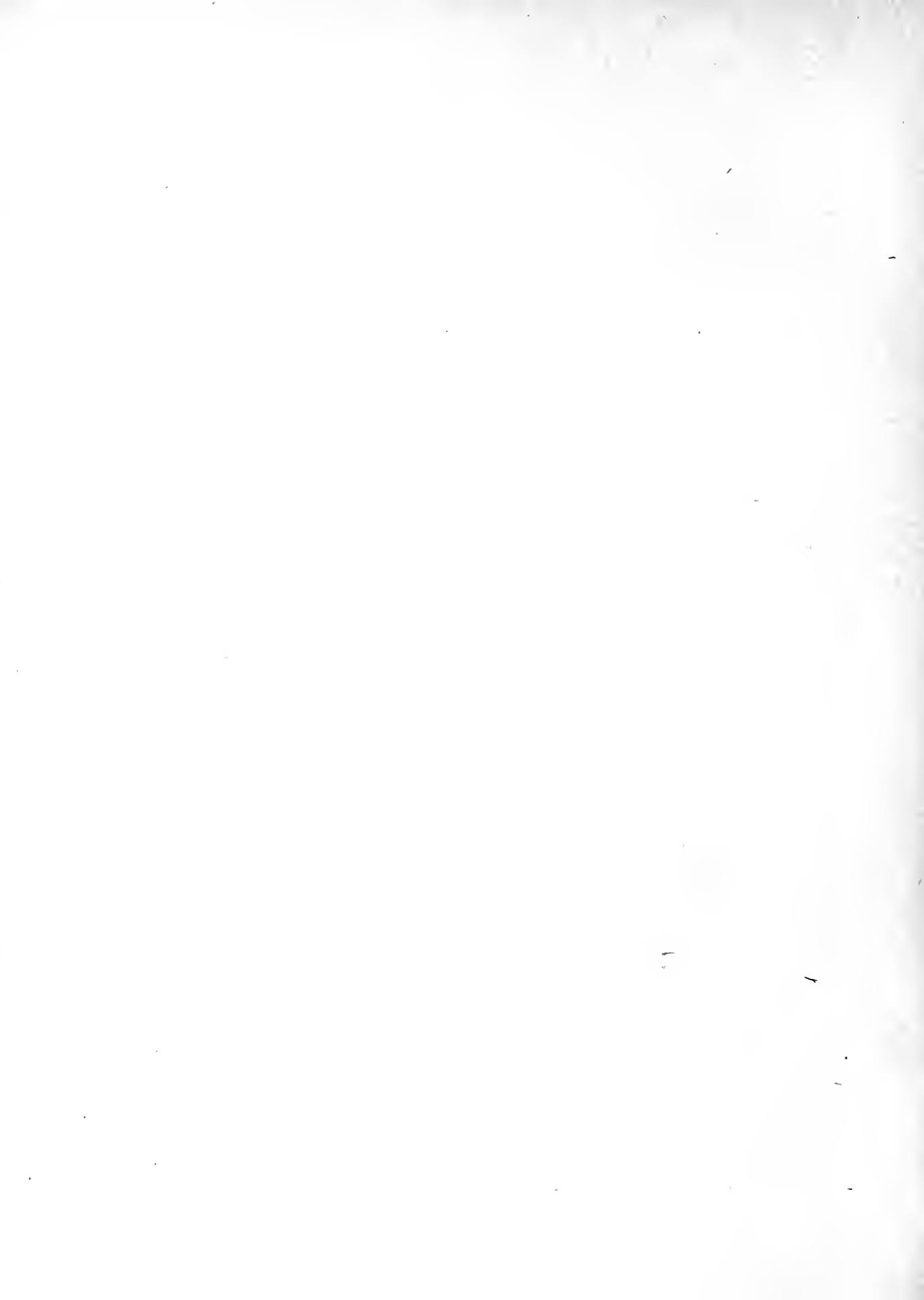


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The French System for Return to Civilian Life of Crippled and Discharged Soldiers

I. INTRODUCTION

The methods followed by the French in returning men discharged from the armies to civilian life have *by no means reached a final form*. The war created in France many needs insufficiently provided for by existing social organization. Public and private energies immediately produced a host of new bodies designed to meet those needs (Appendices B and D); while they have done so, often well, it has become very evident that the functions with which they are concerned would be more advantageously fulfilled were the energies of which they dispose employed with better system. Various Bills have been proposed with the object of securing so desirable an end (Appendix G); they are being considered by the French legislative bodies and some of them will surely become law (Appendix G-54).

As a rule, the laws by which France secures the return of her soldiers and sailors, disabled or sound, to their homes are in harmony with the republican principles which underlie her constitution. At times, however, expediency or conservative respect for tradition has made it difficult for French legislators to secure an ideal adherence to those principles in the drafting of existing or proposed statutes. So it is that, at present, the laws governing the return of soldiers and sailors to their homes from the French 'Armies of Land and Sea' are still in a period of active change. Some of them will be abolished or altered; others may persist; and, certainly, new laws will be made to meet conditions at present regulated, insufficiently, or not at all. The intense desire, conspicuous everywhere in France, to do whatever may be best for the nation makes it probable that the legislation finally adopted will be ideal in its provisions; a Bill recently

adopted by the 'Chambre des Députés' (Appendix G-54) constitutes a strong promise that it will be so.

As far as possible, this report is impersonal. It is based entirely upon written (Appendices B, D, F, and G) or verbal (Appendices A, C, and E) information received from Frenchmen whose duties make them competent to express opinions on this subject with authority. Information has always been obtained from men, or commissions, entrusted with the work rather than from the titular heads of Ministries or of Departments. Consequently, while the report pretends to accurate representation of existing conditions it places in relief those methods which are considered most apt to the purpose for which they are designed. Gratuitous detail is avoided; but it is endeavored to give a coherent and comprehensive account of the main features of the situation in France and, especially, to indicate points where French experience may prove to be of advantage in suggesting measures suitable for Canada (See Section XVIII, page 37).

France has passed through difficulties which are only commencing to present themselves to Great Britain and to Canada. She has felt and reasoned her way to the methods most suitable for coping with them. It would be unfortunate were Canada not to take full advantage of the lessons which French experience so plainly points; but it will be found that, because of national differences, measures suited to France can not always be usefully initiated, without modification, in Canada.

The processes by which the return to his home of a discharged wounded or disabled soldier, or sailor, is secured may be divided conveniently into the following stages:

1. Active medical and surgical treatment;
2. Functional re-education,
3. The provision of artificial appliances;
4. Professional re-education;
5. Establishment in civilian life.

II. ACTIVE MEDICAL AND SURGICAL TREATMENT

For military purposes the territory of France and her colonies is divided into twenty-one military regions. Each region has an organization of its own, complete in itself; this fact is taken advantage of in many ways in arranging for the return of soldiers from the armies to their homes.

It is estimated that about 30 to 40 per cent. of the men composing the French army will be admitted to hospitals because of disease or wounds. Active medical and surgical treatment is given to soldiers by the French Medical Service, in a host of hospitals. Hospitals may be established by military authority, by civilian authority, or by the efforts of private benevolence; hospitals supported by private benevolence may be maintained either through individuals or through societies such as those constituting the French Red Cross Society (Appendix D-62). All of these hospitals are under the Minister of War (Service de Santé).

In addition to general hospitals, institutions for special purposes, such as the treatment of skin diseases or for the repair of injuries to the teeth or jaws, have been established by the medical service when and where they have been required.

Among the most important of the special hospitals are the orthopedic centers. As it happens, there is one of these in each of the army regions which, for military purposes, divide France into twenty areas. Their situations, however, were chosen primarily so that communication with the manufacturers of artificial limbs might be easy. Since many of the manufacturers are in Paris, it follows that several orthopedic centers are in Paris, or near it. Cases requiring orthopedic treatment are sent to these centers from the area which each serves.

The military hospitals established in the 'Asile National des Convalescents' at Saint-Maurice (Appendix A-10) and that established in the Grand Palais, Paris (Appendix A-6), are examples of orthopedic centers. They draw their patients from hospitals in the neighborhood

of Paris. They are equipped with the staff and appliances necessary both for performing any secondary operations of a special nature which may be necessary and for undertaking functional re-education.

Patients sent to the orthopedic centers are carefully examined and, if it is advisable, operations are performed. At first, it was necessary to operate on a considerable percentage of the cases of amputation, because of adherent scars and nerves, or because of insufficiently covered bones, or persistent infection, or similar conditions. The percentage of cases requiring re-operation is now much less—perhaps about two per cent. at the Maison-Blanche (Appendix A-7).

At these hospitals, the stump of every patient who has suffered an amputation is radiographed on his admission. The radiographs have been invaluable both clinically and as records. By them exostoses have been found to be remarkably frequent, especially in the femur; they often cause a stump to be painful. It has been found inadvisable, as a routine, to remove them at once since a dormant infection often has been lighted up by the operation and has resulted in unfortunate supuration.

A very convenient way of recording the findings of the X-ray room in the patient's papers is to make a tracing of the skiagraph on tissue paper. Black is used for the outlines of the skin, blue for the outlines of bone, red for the outlines of pathological structures and red, blocked in, for foreign bodies. (The description of recent developments in medical science such as of the method by which a balanced magnet is employed for finding iron bodies in wounds does not enter the scope of this report.)

III. FUNCTIONAL RE-EDUCATION

Functional re-education is the term under which are grouped all of the means adopted to secure the existence of a maximum of its normal function to an injured part. *Judicious re-education of a part injured should be commenced as soon as is possible*; but, usually, it is not until active hospital treatment has done all that it can do that functional re-education is really commenced.

The nature of the treatment by which functional re-education is to be carried on is pre-

scribed by the responsible physicians and its progress is recorded and ensured by a careful system of documentation. Samples of the cards employed for this purpose are attached to the report (Appendix F-18, F-19). The orthopedic centers are equipped with devices for active and passive mechanotherapy, for treatment by galvanic, static, Faradic, and high-tension currents, by vibration, by baking and blasts of hot air, by baths of many kinds, by colored light, by massage and gymnastics and exercises of various sorts.

Opinion is most unanimous in condemning passive mechanotherapy and in insisting upon the value of active movements, initiated by the patient himself. The exercises first given are simple ones, requiring little effort, such as those commonly used in the re-education of tabetics. They are often of very great benefit to men who have lost poise and the habit of movement by confinement to bed or, often, by an amputation. The exercises for the leg comprise walking along lines, straight or irregular, stepping over obstacles of varying heights and shape, mounting or descending stairways with irregular treads; for the arms there are objects, such as balls or skittles of differing size, form and color, to be handled, and devices which require the hand to be put in various positions. All of these exercises are performed either voluntarily or at the word of command. In gymnasia, well-equipped with apparatus of all sorts, exercises are very commonly prescribed; although 'Swedish' methods are often followed, everything in gymnastics which can be useful is employed.

The machines necessary for the administration of mechanotherapy form a part of the equipment of the orthopedic hospitals. Most of the existing machines are actuated by force applied by the patient—active mechanotherapy; in a few of them the movements are actuated by force developed by an electric or other motor—passive mechanotherapy. Most of the machines employed are of foreign, usually Swedish design. A few of them, however, have been devised locally, either in whole or in part, by the physicians who employ them. The machines devised by Professor Amar (Appendix A-17) are not employed in many centers. It is very probable that their use will become much more general in the future; for they

are both cheap and efficient in achieving the purpose for which they are designed.

Among the various methods employed in functional re-education, most value, after the performance of voluntary movements of all sorts, is attached to the judicious use of massage and heat.

Many of the nurses and volunteers, male or female, who administer massage or other treatment in the hospitals have little technical knowledge. Steps have been taken to give them sufficient instruction to insure the proper discharge of the duties entrusted to them. The diagrams contained in an atlas of motor points produced by Professor Bergonie¹ have been found useful in electro-therapeutical clinics where trained assistance is not always easily obtained.

There is a strong opinion that *work*, properly selected and graduated, has a high psychic value and *constitutes the best possible* means of re-accustoming muscles to action—the physical part of *functional re-education*.² It is also the German idea. In many hospitals facilities for work of various sorts are provided by societies supported by private benevolence (Appendix C-3, C-4, etc.). One such society makes a specialty of providing materials and instruments for work and for instructing patients in their use; another, in addition, makes it easy for all patients to sell, at a good price, anything which they produce. Light work for the army, such as the making of bags and flares, or the hemming of towels, is done in hospital workshops.

The value of the work done by these societies, especially in maintaining a good frame of mind and a taste for work in the patients, is very real. There is little foundation for the criticism that they create an inclination in the men to take up minor occupations, by teaching insignificant employments and by securing exorbitant prices for

¹ Atlas de points moteurs, par le Professeur J. Bergonie, de l'Université de Bordeaux, publié par les Archives d'Electricité Médicale, 6 bis, rue du Temple, Bordeaux (Gironde).

A copy of this Atlas has already been sent by the D.M.S. Canadians, to Granville Hospital, Ramsgate.

² The resolutions expressed by the Inter-Allied Conference (Appendix G-78) make it quite clear—as do publications in Great Britain—that greater benefit may be obtained from useful work, carefully prescribed with due respect to therapeutic effect, than from either gymnastics or, much more so, from mechanotherapy, active or passive.

objects of little real value, because they are made by wounded soldiers. That will never be the case; since, even at the present, the return (about 2-4 francs) obtained from a day's work at basket-making, or any other of the, usually, recreative occupations taught in the hospitals, is less than the return which can be earned at a standard trade. Quite apart from their value in accustoming muscles long idle to constant movement, the minor occupations taught to disabled men in the hospitals do great service; they keep the attention occupied and, partly because they provide a means of earning a few cents daily, awaken and preserve a desire to be again producing and earning a living wage.

Not the least of the advantages of work done in hospital workshops under the direction of medical men is that it furnishes an early opportunity of observing the patient's aptitudes and, consequently, facilitates the making of a sound and early choice of an occupation for him.

The creation of a proper outlook and spirit of cheerful hope in the patients is considered to be one of the most important parts of functional re-education. Wounded and disabled men depressed by suffering and by knowledge of incapacity, are often downcast; they easily believe that they can never again become self-supporting; and a man who would willingly be independent becomes able to see no escape from a life-time of dependence upon a pension. There are, unfortunately, some whose wish, and intention, it is to be always so dependent. Every effort is taken to convince men that, even though they are disabled, they can and must by appropriate re-education, become able to support themselves. Private societies do useful service in this respect, by providing work in the hospitals, by the counsel of visitors enrolled for the purpose, and by advertisements stating the intention of the societies, both to assist men who wish to learn how to support themselves and to help men in establishing themselves in civil life. The Government has ordered its physicians and nurses to do all in their power to convince patients under their care that they can and should become self-supporting. It is their duty to inform patients of the measures designed by the Government for finding employment for disabled

men, and, when necessary, for making them employable.

It has been realized that the best means of securing, in the hospitals, a proper frame of mind and understanding concerning the position of wounded men and the measures to be taken for their benefit is to secure a proper understanding of these questions to the general public.

Much has been done to educate public opinion to a proper understanding of these matters. Many articles have been published by men whose names command respect; many lectures have been given, many speeches have been made by those whose words are received with attention; exhibitions of work done by disabled men have been and are about to be held; articles manufactured by soldiers in hospitals and in centers of re-education are exposed for sale by various societies in every city of France. By these means, by the distribution of picture postcards, illustrated pamphlets (Appendix G-82), and by the exhibition of cinematographic films, much has been done to familiarize the French with the idea that a man disabled by his wounds is still able to work, and can, and must learn to be self-supporting in the measure of his capacity for doing so.

Statesmen and men of letters alike have used their influence, by voice and pen to assist in the spread of a proper understanding of the circumstances surrounding the return of a disabled soldier to civilian life. Hardly a day passes without something said or written by them with careful prominence; so thoroughly have they done their work that there can scarcely be any one in France capable of reading or listening who has not had clearly placed before him an accurate statement of the principles which must govern the measures adopted by France in providing for those who have been her defenders.³

Attached to this report are examples of the posters and postcards used by bodies—public or private—concerned with wounded soldiers, in order to convey a knowledge of their service both to the public and to those whom they attempt to benefit. (Appendix F-31-35.) There are many

³ At the Inter-Allied Conference (Appendix G-78) much in stress was laid upon the importance of securing a general public appreciation of all of the factors entering into the replacement of disabled men in civilian life.

such postcards; their use and distribution constitute a valuable means, especially in France where postcards are so commonly employed, of advertising the work of the bodies which issue them.

Cinematographic films dealing with subjects connected with the war have been taken by commercial firms, by private persons and by the Cinematographic Department of the Army (Appendix A-16).

Two films illustrating the re-education of disabled men have been produced by Pathé Frères. One describes the work done in the École Joffre at Lyons (Appendix A-4), the second film illustrates work done in Paris and at Saint-Maurice (Appendix A-10); the latter has been ordered for the D.M.S., Canadian Contingents. Both these films are called 'Rééducation des Grands Blessés' and each measures 270 metres in length. These films can be obtained and seen upon application to Pathé Frères at Cinéma Limited, 103-109 Wardour Street, London, England, or at 30, Boulevard des Italiens, Paris. A list of the films produced by the Cinematographic Department of the army is attached to this report (Appendix A-16); a list of the titles of the Department's film illustrating l'École Joffre is also attached. The Department's film on this school is the original of that issued by Pathé Frères and it contains 430 metres. Two copies of it have been ordered with French and English titles respectively for the D.M.S., Canadian Contingents.

Lantern slides illustrating Professor Amar's work (Appendix A-17) have already been sent by the D.M.S., Canadians to Granville Hospital, Ramsgate. They were obtained with Professor Amar's permission, from the professional photographer who took them, Sartony, 45, rue Laffitte, Paris, who does all of Professor Amar's photographic work.

The knowledge that it is greatly to the advantage both of themselves and of the State that disabled men should undergo a course of professional re-instruction has become general, thanks to the measures mentioned in previous paragraphs. One result is that the percentage of men who ask for re-education is very much greater now than it was a few weeks ago. At first, many men,

(about eighty per cent.) refused re-education, among other reasons, because they feared that their pension would be reduced if their earning power were increased by the acquisition of a new occupation; the Government has removed that fear by the definite assertion that the amount of a man's pension depends not upon his earning power but upon the extent of the incapacitation resulting from his disability (Appendix G-54).

IV. PROVISION OF ARTIFICIAL APPLIANCES

The supplying of artificial limbs to those who have suffered an amputation is a very serious question, since the war has created between forty and fifty thousand such persons in France; there were approximately 30,000 at the commencement of December, 1915. It is stated that from about two and five-tenths per cent. to three per cent. of the Belgian wounded have suffered amputation. At present, it is estimated that artificial appliances of some sort will be required by about one per cent. of the wounded.

It is recognized that the State must supply and maintain in repair, any artificial appliance necessary for the reconstitution of a disabled man's infirmity. It is also recognized that the appliance must be of the highest quality and the one most apt to its purpose.

The 'Commission d'Orthopédie de France' (Appendix A-15) has been established for the purpose of making certain that the limbs supplied by the State are of the best possible design and construction. Plans and specifications of the artificial appliances adopted by the commission are about to be issued and after the first of June all appliances supplied at Government expense must be of these patterns. The models established by the commission will be revised yearly.

In order to secure uniformity in the manufacture and supply of artificial appliances they are to be issued at only six centers in France; at each of these centers sealed patterns of the appliances adopted will be maintained for the use and guidance of manufacturing orthopedists.

The model types have been adopted after most careful study. Drawings and detailed specifications of the artificial arms were attached to this report; descriptions of other appliances

will be sent to the D.M.S., Canadians (Appendix E-1) as they are adopted.

The diversity of artificial limbs adopted by the commission permits a considerable latitude of choice to the orthopedic surgeons.

The orthopedic commission will establish types of appliances other than artificial limbs. Skull caps and plates of various types are being employed for the protection of those who have lost a portion of their cranium; and springs, of many designs, are used to replace muscles of which the use has been lost.

Of those whose limbs have been amputated about three-fifths have lost legs and two-fifths arms. The distribution of disabling injuries of the extremities is the reverse of this; more men are discharged from the army on account of disabilities of the arms than of the legs. The reasons for this state of affairs probably are that the legs offer a bigger target than the arms; and also that a man hit in the upper part of the body is often killed. Again, at the beginning of the war, especially, men hit in the arms were able to find their way to dressing stations where they received treatment by which their arms were saved, although often permanently injured. Those hit in the legs, on the other hand, lay on the ground until they were picked up by stretcher-bearers, often after a considerable period. They, consequently, only reached the hands of the surgeons when their wounds were infected and an amputation had become the only treatment possible.

When functional re-education is completed the stump of an amputated limb should have almost reached its permanent size and it should be ready for the fitting of an artificial limb.

According to French practice the first essential for the successful fitting of an artificial limb is to make a plaster model of the stump; upon that model the limb is built.

At the Maison-Blanche (Appendix A-7) it is considered that a permanent limb should not be fitted to a stump within three months, others say five months, after the final operation; and, whenever it is possible, patients, especially those who are to receive an artificial leg, wear a provisional limb for a time in order to harden the stump and bring it to its final form before a per-

manent appliance is fitted.⁴ When this cannot be done the practice is to reduce the size of the stump by massage and bandages. It is much easier to fit satisfactorily an artificial arm than a leg. Of course, although an artificial arm can be fitted more quickly than an artificial leg, it can never so completely replace the lost member as a well-fitted, artificial leg may do.

Formerly those who had suffered amputations and required artificial limbs were gathered together in depots, such as that established in the Maison-Blanche, until an appliance could be given to them. It has been found to be undesirable to do so, since the 'morale' of unoccupied patients rapidly deteriorates; now it is endeavored to supply artificial limbs, and other prosthetic appliances, to men while they are still inmates of an orthopedic hospital. Depots for men who have suffered an amputation no longer exists; functional and professional re-education commenced at the earliest moment possible, now proceed uninterruptedly until the preparation for the return of the men to civilian life has been completed.

At first, there was delay in the provision of artificial limbs, and, moreover, it is said that those furnished by the State were not good. As a result, many individuals and private societies commenced to supply artificial limbs of a good quality to disabled soldiers requiring them (Appendix D-2, D-7, D-11, D-13, D-32 etc.) Some of the societies continue to do so; although there is now, certainly, no need for their activity.

At present, the situation is that the State has requisitioned the output of every firm of any standing manufacturing artificial limbs in France. It has appointed an active and competent commission, the Commission d'Orthopédie de France (Appendix A-15) to establish the types of limbs to be manufactured by these firms and it bears the cost of furnishing only limbs of the types adopted by the Commission.⁵ Good workman-

⁴ At the Inter-Allied Conference (Appendix G-78) a definite recommendation was made that men suffering from amputation of the legs were to be given temporary pegs in order to facilitate the hardening of the stumps and in order to habituate them to the use of an artificial leg.

⁵ At the Inter-Allied Conference a resolution was made (Appendix G-78) that an international committee would be established for the purpose of coordinating knowledge concerning the best type of artificial appliances.

ship and the use of proper material in the construction of artificial appliances is secured by constant inspection of the workshops producing them (Appendix F-38). Boards consider the condition and circumstances of each man requiring an artificial limb; they decide upon the type of artificial appliance best suited to his needs and, when his apparatus has been fitted, a board of reception decides whether it is acceptable or not.

The consensus of opinion at present seems to be that the simplest artificial limb is usually the best; and it is admitted that the aim of an artificial appliance should be to remedy not the anatomical but the physiological loss.

The artificial arms supplied by the State are, roughly, of two types: first, there are arms of moulded leather terminating in wooden hands with movable thumbs for which a hook, ring, or other fitting can be substituted (Appendix F-38); and second, the steel arm, designed by Professor Amar (Appendix E-1; G-1a).

Arms of the first type have been supplied by the State from the beginning of the war. It is only recently that their construction has been standardized (Appendix F-38); by the Commission d'Orthopédie de France. They consist of the usual moulded-leather bucket, attached to the stump in varying ways, and of a substitute for the lost hand. At first, the artificial hand and various fittings supplied with these artificial arms had little practical value. It is hoped that the heavy forearm and claw designed by Professor Amar will be found to be more useful; the forearm consists of a strong rod, it is attached to the elbow by a joint permitting flexion and rotation; at the wrist a powerful pair of jaws is attached by a ball and socket joint; all of these joints may be fixed in any position. The jaws are so designed that they will hold, firmly, almost any tool, heavy or light; they can be detached and a wooden hand of the usual conventional type may be substituted for them.

The second limb (Appendix G-1a) is constructed of thin steel and possesses a hand with articulated fingers; the fingers are actuated, through a cable, by movements of the shoulders or, less often, of the chest. This arm is both cheap and light, and it will be distinctly more useful to those engaged in light occupations than

the ordinary artificial arm. It will be supplied, especially, to those who have lost two hands (Appendix E-1).

Possibly because the loss of a leg is of less economic importance than the loss of an arm, less attention has been paid to the devising of artificial legs. The type of leg hitherto usually supplied by the State has been, like the arms, made of moulded leather strengthened by steel and ending in a wooden peg or foot. A few have been made on the 'American' plan of hollowed wood covered with parchment. The peg-leg is held to be the most useful for occupations requiring the exertion of any force and, especially, in amputations of the hip. The artificial limb which tries to look like a real leg, or arm, may be useful, from an esthetic point of view, to those, such as clerks, whose occupation makes it necessary for their appearance to be normal.

In some of the types of legs which will be adopted by the Commission, it will be possible to fix, or leave free, the knee joint, and, when the day's work is over, to remove the ordinary peg and substitute for it an articulated foot. The disadvantage of the peg-leg for those, such as farmers, who must walk over soft surfaces has been partly overcome by the elaboration of a light sandal which can be clamped to the end of the peg.

Legs made both of leather and of wood will be adopted by the Commission. As a rule, it will be held that it is better to use a leather leg for a young and tender stump, and a wooden one for a hard, old, and short stump.

One of the best of the wooden legs examined by the Commission was made for himself and patented, by a young joiner who lost a leg in the war. He has devised a knee articulation by which the leg tends to become rigid and straight, when slightly bent, as in ascending a stairway, and by which it is naturally and quickly flexed to a right angle, if the knee be considerably bent as in sitting down.

No type of rigid leg has been established for provisional use in hospitals by cases who are waiting for a permanent appliance. This, like many other minor matters, is left by the Commission to the decision of the orthopedic surgeons.

When a man becomes dependent upon an artificial appliance he practically loses his means of livelihood if it be broken; for this reason, it is intended that each man who has suffered an amputation shall be supplied eventually with two artificial limbs, so that he will always have one in reserve ready for use, should the limb usually worn be broken.

The best makers of artificial limbs in France are:

Haran, 12, rue Lacépède, Paris.

Ph. Cauet, 119, Boulevard Richard Lenoir, Paris. This firm has patented and manufactured Professor Amar's steel arm.

Mayet-Guyot, rue Motorgueil, Paris.

Drapier & Fils, 41, rue de Rivoli, Paris. The head of this firm is M. Breton, who is also President of the *Chambre Syndicale d'Orthopédie de France*.

While insisting that an artificial arm can never be much more than a support, Professor Amar expects that his arms, especially the steel forearm and claw, will give useful service, the latter in even the heaviest occupations. He states that he knows, at present, of 111 armless men who are working successfully for ten hours a day, and are earning good wages in manual occupations. Dr. Bourrillon of Saint-Maurice (Appendix E-4) among others is, however, rather sceptical and inclined to insist that maimed men will usually get real service most easily from some simple device of their own design or from an apt use of their stump (Appendix E-11).

This opinion holds good for those who have lost legs as well as for those who have lost arms, and there seems to be some sound foundation for it. The frequency with which men use the stump of an amputated arm or leg for various operations and discard their artificial appliances while at work is remarkable.

Ordinary ingenuity quickly devises appliances for making easy operations which a mutilation has made difficult. For example, cobblers constantly employ a short crutch for supporting the stump of a leg, amputated above the knee, while they are at work; and they arrange a strap or a modified vice for holding boots when it is impossible to fix them between the knees as a cobbler usually does; again, at Tours and at Bordeaux, various attachments to artificial arms have been

devised for the use of one-armed letter-carriers, card-players, etc. Not infrequently, it is possible for similar ingenuity to alter the tools ordinarily employed in an occupation so that they may be used by an individual who has lost one or more of his limbs; for example, a simple alteration has been made in the ticket-punch used by conductors so that it may be attached to a coat and be conveniently used by a one-armed man (Appendix E-1).

The principle that the State should maintain in repair artificial appliances provided by it has been accepted; the means by which that principle is to be realized are still under discussion. Vexatious delays, among other inconveniences, would certainly result were a system inaugurated by which limbs, or other appliances, were sent for repairs to centers where State workshops were maintained for that purpose.

All things considered, the best plan seems to be to pay a fixed sum for its maintenance to those receiving an artificial appliance. The sum so paid will necessarily be a considerable one, something less than about one-fourth of the original cost of an artificial limb annually; since the life of an artificial limb, even when the best of care is taken of it, is but short.

The opinion of the staff at 'La Maison-Blanche' (Appendix A-7) is that a leather leg, for example, will scarcely last for three years, and that if it is not properly looked after, it may be practically worn out in less than a year. For that reason, alone, they prefer legs to be made of wood strengthened by a coating of parchment. Others, from their experience, are of the opinion that artificial legs should last for about four or five years.

The desirability of making artificial limbs of a strong and simple type, so that repairs will not often be needed and may be easily executed, has been borne in mind in the design of the limbs supplied by the Government. Orthopedic workshops and centers of professional re-education have been established where considerable numbers of men are being trained, and employed, in the manufacture of artificial appliances; at the end of the war, these men, returning to their homes, will be distributed throughout France. For these reasons it should, in the future, be possible to obtain all repairs, for an artificial limb

of a usual type, with little delay anywhere in France.

Full advantage is being taken of the opportunity for study afforded by the presence of large numbers of mutilated men in the institutions controlled by the State. Workshops have been established at several of the centers of re-education and at hospitals for the invention and manufacture of artificial appliances.

Laboratories and workshops intended, not for the manufacture but for the devising of artificial appliances have been established, for example, at Bordeaux (Appendix A-3) and at Lyons (Appendix A-4).

The manufacturing workshops at Saint-Maurice (Appendix A-10) are under the direction of an officer who is a member of a well-known firm manufacturing surgical instruments in Paris. His workmen, like himself, are soldiers. They receive twenty-five centimes a day and the total cost of their labor and maintenance to the Government comes only to one and one-half francs daily. Consequently, the workshop is able to produce artificial limbs at about one-third of the usual commercial cost of manufacture.

The many advantages of having a workshop capable of producing artificial limbs in connection with an institution where there are large numbers of men who have suffered amputation are obvious; it does much to insure the delivery of properly-fitting limbs to those requiring them within a reasonable period and makes it easier for the physician to be certain that his directions have been followed.

V. GENERAL PROFESSIONAL RE-EDUCATION

It is estimated that about 0.4 per cent. of the wounded will require professional re-education. Professional re-education is the term applied to the instruction given to disabled men in order to prepare them for the occupation to which their aptitudes and social circumstances make them most suited.

The importance of securing continuance of ability to be self-supporting to injured persons is indicated by the records of the social progress of injured workmen in Germany (Appendix G-33). A number of injured persons who had received

a monetary compensation proportionate to their injuries were traced. It was found that the social position of practically all had deteriorated who had not found occupation. This experience serves to illustrate the contention that the rehabilitation of an injured soldier can by no means be secured by the payment to him of a pension alone; to discharge its indebtedness to him the State must, in addition, make him employable, by appropriate professional re-education, and must help him to find employment.

The selection of a suitable occupation is of paramount importance to a disabled man; the choice must not be made lightly. In choosing—for a disabled man is not always capable of wisely choosing an occupation for himself—he must be assisted and guided by those who are expert in the estimation of abilities and in the advising of vocations.⁶ In choosing an occupation for a disabled man, the aim is always to select one in which, often because of superior training and knowledge, he will be able, in spite of a physical handicap, to support himself in competition with those who are sound in limb. Because mutilated men can never be the physical equals of those who are sound; it is necessary, if men disabled in war are to be made economically independent, to furnish them with the knowledge which will give them an assured position. It is expected that many, thanks to a thorough knowledge of the occupations which they have chosen, will become capable of directing others and of being small employers of labor. Many, indeed, in spite of their disablement will have a better economic position than they had before the war.

Because of the disability which forces him to think and be willing, if he is to earn a living at all, a disabled man often becomes an unusually intelligent workman; but no man, already handicapped by a disability, should be permitted to take up a trade which can never give a good return.

For many reasons, especially for their future well-being, it is necessary that the professional re-education of disabled men should be a sound one. At present, and for some time after the

⁶ At the Inter-Allied Conference (Appendix G-78) the importance of competent and well-trained technical advisers was insisted upon especially.

war, it will be easy for them to find occupation; a sentiment of gratitude and sympathy alone makes that certain. But that sentiment cannot survive for long. It will disappear in a few years after the war, when the economic struggle once more becomes keen. Sound workmen will not then consent to receive the same remuneration as disabled men, whose output is less than their own; nor will employers consent to pay the salary of a sound man to one who is incapable of doing a sound man's work. Especially, will it be difficult for a disabled man to compete with those who are sound when old age commences to still further reduce his already lessened capacity for work. In these circumstances, unless disabled men have chosen their occupation wisely and are masters of it, their position will become most unfortunate.

The first desires of a man discharged from the army are, usually, to draw what money is due to him, to get his pension, and to return at once to his home, his family, and his former occupation. This desire has been so keen in many men that they have refused to submit to professional re-education; indeed, misguided private benevolence has organized societies with the object of returning men without proper discrimination at the earliest moment to their homes. The main excuse for doing so has been the desire of the men to return and a wish to prevent the possibility of a taste for town life being created in countrymen, detained during a considerable period of treatment at hospitals and centers of re-education situated in cities.

Since French opinion has not yet permitted professional re-education to be made compulsory, some of those requiring it still continue to return untrained to civil life. The proportion of the wounded now refusing professional re-education is much less than it was a few weeks ago; it is not long since only about twenty per cent. of those to whom re-education would have been useful accepted it. The result of the efforts made to educate the wounded and the public in the necessities of the situation surrounding the return of disabled men to civil life is commencing to be evident. The men now understand that they have a right to re-education, that it gives them great advantages, that it costs them

nothing, and that their pension will not be reduced if their earning power is increased by their re-education. An effort is being made, so as to avoid any possibility of a misunderstanding on this point,—to grant all pensions before professional re-education is commenced.

It is by no means necessary for all disabled men to receive professional re-education. There will always be many whose occupation or social circumstances will make it advisable for them to return to their homes and to the activities of their normal lives as soon as possible; this will be true, for example, of men of affairs possessing private means. But no disabled man should be allowed to return to his home, unless he has an independent income, until he is able to support himself.

In selecting an occupation for a disabled man the knowledge and dexterity already acquired in the exercise of a trade or profession should not be lightly discarded. It is estimated (Amar Appendix G-67) that about ninety per cent. of men disabled can be made capable of usefully performing either their former employment or some occupation directly connected with it. His experience is, that about 80 per cent. of men wounded can be re-educated and made capable of usefully following a technical occupation. About 45 per cent. of the wounded can earn a normal wage, if about 10 per cent. of these become specialists. About 20 per cent. of the wounded will only be able to earn part of the normal wage: Of the wounded contained in these first two groups 65 per cent. can be employed in ordinary workshops. Of the wounded 15 per cent. can only be made capable of performing small duties; for these, if for any, it will be necessary to establish special workshops for disabled soldiers. Only the remaining 20 per cent. of the wounded will be unable to support themselves; and some of these even, will be able to earn something. These will be sound, especially if, by a course of training, all those who have lost a right arm become left-handed; for example, a house-carpenter who has lost a leg may become a joiner; again, a lathe-hand may become a checker, overseer or store-keeper in a machine-shop.

The nature of the industries carried on in the neighborhood of a man's home has an important

influence upon the form of re-education which he chooses. Another consideration which influences the choice of an occupation is the constant desire of disabled men to return to an independent, self-supporting life at the earliest possible moment.

The re-education of disabled men in occupations for which their injuries have not incapacitated them is by no means a new thing. Institutions for the re-education of laborers injured during their work have existed for years in Scandinavia, in Belgium, and in France. Petrograd and Munich, among other cities, had, before the war, institutions occupied with the physical re-adaptation to employment of disabled workers. The experience of these institutions has demonstrated that only those with expert knowledge are capable of accurately estimating the capacity of a disabled man for a given occupation and, consequently, that only they can wisely advise disabled men in their choice of an occupation. To do so, an intimate knowledge is required of the state and probable trend of the labor market and not only of the operations performed in the exercise of an occupation, but both of the way in which a man's injuries interfere with the performance of those operations and of means by which that interference can be removed, or avoided.

Although a distinction has been made between functional and professional re-education, they, with appropriate treatment and the provision of artificial appliances, are complementary processes; they should proceed side by side and should all be commenced as early as possible in a patient's treatment (Appendix G-54). Since this is so, it is obviously of advantage that the institutions in which active hospital treatment, functional re-education and professional re-education are carried on and in which artificial appliances are supplied should be as closely connected in space and in organization as is possible. In this respect the institutions at Saint-Maurice (Appendix A-10) constitute, as is intended, a model. There are some institutions in which professional re-education alone is given. It has been found to be very important to admit no one to such an institution until his treatment and functional re-education have been completed, and unless he

has received any artificial appliance which may be necessary.

Although the desirability of securing a sound instruction in a suitable profession to a disabled man is so great, a considerable effort, already alluded to, has been made in certain quarters to return men to their families at the earliest moment and to allow them to re-establish themselves and to acquire a professional re-education through the good offices of their neighbors. The only merit of this policy is that discharged soldiers are quickly absorbed in civil life; from what has been said, its dangers are evident and grave.

Many factors have governed the adoption of the methods now in force by which professional re-education is secured. Some of them have already been mentioned. Factors making it difficult to re-educate large numbers of disabled men in pre-existing educational institutions are the irregularity with which the men present themselves for instruction and the rapidity with which they learn. Ordinarily, all the pupils of a class in a technical school commence their instruction in a given subject at the same moment; disabled men present themselves by ones and twos as they become convalescent and capable of receiving instruction. The rapidity with which disabled men learn is very great; they are keen and anxious to be once more at work, they often know something of the matter in which they are being instructed before their admission to the school and usually, being better accustomed to reasoning, they learn more quickly than those who are younger. Men, without previous knowledge of the trade, become capable of earning a living as tinsmiths, tailors, or harness-makers in six months; within a year, men having only a fair primary education become competent clerks. To become first-class workmen requires a longer course of instruction, for tailors 15-18 months, for joiners and cabinet makers 18-24 months. It is probable that it will, in no case, be found necessary for a course of professional re-education to last for more than from eighteen months to two years, at the outside.⁷

⁷ At the Inter-Allied Conference (Appendix G-78) it was urged that every effort should be made to choose occupations for men which should not demand a period of training exceeding one year.

Four main plans are being followed in providing means for giving professional re-education to disabled men. They are:

1. The establishment of special schools (Appendix A-10, B-1).
2. The provision of lodging-houses permitting the attendance of men at existing technical schools or, as apprentices, at establishments or firms engaged in business (Appendix B-2).
3. Training schools established by guilds and similar organizations (Appendix C-5).
4. The payment of allowances to individuals in order to provide for their subsistence, at their homes or elsewhere, while undergoing re-education.

Each of these systems has its advantages and may be usefully employed. Often they will be combined in order to give elasticity to the operations of a center of re-education.

The first system, the establishment of special schools for the re-education of disabled men, has been found to be the one most generally useful; it has the merits of instructing thoroughly and quickly, and of maintaining sound habits in those whom it instructs. Because the need which they fill is a temporary one, lasting for, at most, only two or three years after the end of the war, much money should not be spent upon their organization or equipment. Full use should always be made of existing institutions and organizations. If the creation of machinery of a permanent nature should be necessary it should be designed so that it may continue to be useful after the immediate necessity which created it has come to an end.

The schools should be large; Bourrillon (Appendix E-4) is of the opinion that about two hundred inmates make a school of a convenient size. The school should be large, because it is only in large schools that many occupations can be taught. But no school can be large enough to teach all trades and, therefore, unless the nature of the subjects taught in the school makes it undesirable, it should be placed in or near a large city; since it is only in large centers of population that instruction and practice can be obtained easily in many of the more unusual and highly technical occupations. The number of schools established will be fairly great so that it

will be possible for men to be near their homes during their re-education.

The second system, the provision of lodging-houses for the use of men obtaining a professional re-education either at technical schools or by apprenticeship, is constantly used. Existing educational institutions are utilized, whenever they can be employed to advantage (See the latter part of Appendix B). Directors of technical and other schools have been invited to state the number of disabled men for whom they can establish special courses. These institutions have also been called upon to furnish and train instructors for the special schools established for the professional re-education of ex-soldiers.

It is necessary that those instructing disabled men should be especially competent both as technicians and as instructors; they must be trained teachers proud of their work and having a real sympathy for those whom they instruct. In order, by example, to stimulate hope and ambition in disabled men, it is desirable that their instructors should be specially trained men chosen from among their own number. Men who are to become instructors in schools yet to be established are being chosen from among the inmates and are being trained at existing schools, such as that at Bordeaux (Appendix A-3).

Hostels for lodging, and sometimes boarding, men undergoing re-education have been established by committees organized for that purpose in towns where centers of re-education exist. When it has been considered desirable that a hostel should be established, it has been suggested to the Prefect of the district concerned that a committee should be formed and made responsible for its creation and maintenance. The Prefect is responsible for seeing that those appointed to the committee are persons of substantial character. The Government assists these committees with funds in accordance to their needs; but their main resources are obtained by public subscription.

So far, the third system, re-education in special schools established by professional organizations (Appendix C-5, C-8), has not assumed large proportions. The advantage of educating men in schools of this sort, or by apprenticeship, is that employment is almost certainly assured them at

the completion of their course of instruction. The system of re-education by apprenticeship has, however, the very real disadvantage that men are tempted, by the ever present opportunity of earning a living wage, to abandon an opportunity of increasing their economic value, through additional instruction, for the immediate advantage of a regular, though small income. Also, the greed of an employer often tends to make an apprentice an ill-paid employee instead of a pupil. Nevertheless, it will often be necessary for men to become apprentices, either with or without having received previous preliminary instruction in a residential school, in order to obtain or to complete a training in some special employment.

The fourth system, the payment of subsistence allowances, cannot always be employed because of the difficulty, under some circumstances, of making certain that money so distributed is properly employed. One means of doing so is to provide for its payment, by employer or instructor, only to pupils who have done their work regularly and well. At present, the State grants subsistence allowances to their families but not to the men who are following courses of technical instruction; the allowances are also given by several societies and may be granted by centers of re-education (Appendix D-32, etc.).

Whatever system of re-education be employed, only those who express their willingness to submit to necessary regulations and are both anxious and able to take full advantage of the opportunity offered them should be permitted to commence a course of instruction. This is especially true of residential schools. Almost fatal damage to the success of an institution can be done by the presence in it of a few irreconcilable malcontents or of those who are incapable, either mentally or physically, of receiving instruction; persons of this nature should be refused admission to a school or, if they have been admitted, should be dismissed as soon as they are discovered. It is of importance for the successful working of an institution that the first group of students admitted to it should be of a high standard. Men should not be admitted to a center of professional re-education which is not immediately associated with a hospital until their wounds are healed and

they are sound and well in body and mind; it is usually desirable, by no means essential, that they should also have received their artificial limbs.

For the sake of the 'esprit de corps' which it lends, a uniform, either military or one special to the school, is sometimes worn. Save for those who have not yet been discharged from the armies, the institution relies for the maintenance of order upon its own, and not military, discipline. Each student realizes that he enters the school for his own good, that he is free to leave it at any time and that the severest punishment which can be given him for infraction of the regulations of the school is dismissal from it.

It is questionable whether it is desirable to allow men to visit their homes before their instruction at a center of professional re-education is commenced. Some maintain that those who return to their homes are persuaded by the influence of their families and by renewed contact with the realities of civilian life, to accept the economic advantages offered to them by an appropriate professional re-education; again, it is said that men who have had the satisfaction of a visit to their homes face a course of training, involving a further absence of several months and the restraint of a school, with all the greater willingness. The experience of others is that men who return to their homes become loath to leave them again and refuse to enter a center for re-education. Whatever is done, it is certain that professional re-education should be commenced as early as possible and that lack of occupation should never permit the habit of idleness to be formed.

From many points of view, it would be desirable, were it possible, to make it compulsory for all those requiring re-education to attend schools for that purpose. Up to now such a policy has not been initiated and it is sometimes said that public opinion would not permit its operation any more than it would permit a disabled soldier to be forced to undergo medical treatment by which his disability might be lessened or removed. However, it may have been in the past, opinion is now better instructed and it will soon be made necessary for, at least, those receiving pensions to undergo a course of professional re-

education when it is considered desirable for them to do so. In the same way, refusal to submit to an operation or other treatment which would result in a diminution of a disability is, already in practise, considered to be a sufficient cause for entailing a reduction of the pension to which the existing degree of incapacity would otherwise entitle the individual concerned. Nevertheless, at present, it is only in the measures followed in dealing with tubercular soldiers (See Section XIV, page 32) that compulsory treatment forms part of a definitely adopted policy.

At present, the status of those who are being re-educated at centers dependent upon the Government, such as that at Saint-Maurice (Appendix A-10), differs widely. Some of them are soldiers who are still undergoing treatment in the hospital; others, who usually will not again be fit for service, are on indefinite sick leave (*cong  de convalescence illimit *); others have been found unfit for service by medical authority and are awaiting their discharge (*propos s pour r forme*); others have been discharged from the service with a pension (*R form s No. 1*) or, rarely, have been discharged without a pension (*R form s No. 2*).

The arrangements by which men receive payment for their work while they attend centers of re-education, are described on page 28.

VI. EXISTING ADMINISTRATIVE PROCEDURE

The control of men who have not yet received their discharge and are still under military discipline is, naturally, easy. It was anticipated in some quarters both that discharged soldiers would never voluntarily place themselves under the restrictions of a boarding-school and that, if residential schools were established, it would be impossible to maintain a strict, though reasonable discipline in them. Experience has shown that the residential type of school gives the best results, that the men attending such schools themselves appreciate the advantage of long days of uninterrupted work—the men welcome everything which brings renewed independence to them more quickly—and that they are not only willing to submit to the necessary regulations, but are anxious to maintain them (Appendix A-3).

It is desirable that men attending schools of re-education should have received their discharge and have been granted their pensions; but the fact that his discharge and the granting of his pension have not been completed should not be permitted to delay the accomplishment of any part of the process designed to make a man once again independent and self-supporting. There must be no unoccupied detention of men in convalescent hospitals or depots while the papers necessary for completing discharges or propositions for pension are prepared and collected.

When a man enters a school for professional re-education the first care must be to make a proper choice of the occupation which he is to follow. Before a choice can be made it is necessary that the man's capacity should be known. A statement of his economic, physical, and mental capacities is drawn up from his assertions, from the documents which accompany him and from the observations of competent observers. At the Belgian institution (Appendix A-9), for example, the Physician is responsible for a statement concerning physical aptitude, the Director of instruction for a statement concerning mental and physical condition, and the Technician for an opinion concerning professional capacity and aptitude. To arrive at a proper appreciation of a man's capacities is often a matter requiring some little examination and time; the choice of an occupation for him cannot be made wisely until that appreciation has been made rightly; and the choice, to be a sound one, must be arrived at after consultation with the man and must be one that is agreeable to him.

It is well that the Director of a center of re-education should be a medical man (Appendix A-3, A-9, A-10, etc.) possessing the special knowledge and ability which his situation demands; but it has been found, in practice, that the opinion of the Physician is not so important as that of the Technician in making the choice of an occupation; the psychological and economic factors are usually of more importance than the physical condition of the man concerned. As a rule, a physician is able to do little more than say that a man should not attempt to perform certain movements or operations of which he is no longer physically capable.

Experience has shown that men who have lost legs may practise almost any trade; but that they, especially those who have been amputated in the thigh, find it difficult to stand for long. An amputation of the left leg is especially troublesome, to joiners and shoemakers. Most of the men who have taken up farming, in any of its branches, are disabled in the arms. Good clerks are being made both of men who have lost arms, and of men who have lost legs.

Among the disabled men who have passed through the school at Saint-Maurice (Appendix A-10) about two per cent. had a very defective primary education; about one, to one and one-half per cent. of the Belgians (Appendix A-9) are illiterate. These figures give some idea of the justness with which the importance of providing courses of primary education at all centers of re-education is insisted upon. No disabled man, capable of acquiring it, should be allowed to be without a sound knowledge of reading, writing, and arithmetic.

In the arrangement of instruction at the centers of re-education, practice and theory are appropriately combined. As far as possible, useful things, which can be sold to the pupil's advantage are made in the workshops and, in the classes, the practical application of theoretical instruction is fully indicated.

The progress of pupils is watched carefully, in order to make certain that they are benefiting by the instruction which they receive and that the choice of occupation for them has been wisely made. At Bordeaux (Appendix A-9), the work and progress of pupils is recorded and followed by the Director by means of a complete system of workshop note-books and reports (Appendix F). At Lyons (Appendix A-4), more reliance is placed upon the opinion of individual instructors. Both systems doubtless have their advantages. The first enables the Director to exercise a very personal supervision; the second, more elastic, depends for its success upon the existence of a corps of competent instructors. Whatever the systems followed may be, as soon as it becomes apparent that the choice of occupation, for any reason, has not been made wisely, the situation is explained to the man concerned and dealt with as the occasion demands. If it is evident that he

is quite incapable of following the occupation which was first chosen, another must be tried.

When a pupil leaves a center of re-education a certificate of capacity, in his chosen occupation, is given to him. It is considered to be of the utmost importance that a high standard of efficiency should be maintained in those to whom certificates are granted, in order that employers may be safe in relying upon the competence of those possessing them. Although there are many 'light jobs' which will very properly be reserved for old soldiers, pupils are, as a rule, discouraged from taking anything but an employment where the salaries received are equivalent to the worth of their labor. If more is paid, it is in the nature of a charity; if less, it is an exploitation against which disabled men must be protected.

It is very desirable that pupils should go from their center of re-education to an employment; to secure employment for their inmates, many centers maintain an active employment bureau of their own. If pupils do not find employment so soon as they are ready for it, they are very apt to become discouraged and resigned to live in idleness on their pensions and on charity.

VII. PROFESSIONAL RE-EDUCATION OF THE BLIND

Trench warfare, which exposes the head more than the body has resulted in an unusually large proportion of head injuries and, consequently, of total or partial blindness among the wounded. It is estimated that there are at present about two thousand totally blinded French soldiers; if it be assumed that France has called four million men to the colors, it may be said that about five-tenths per cent. of her soldiers engaged have been blinded.

As far as possible, all men found unfit for service because of eye trouble are sent to the Ophthalmic Hospital which forms a part of the 'Hospice des Quinze-Vingts' (Appendix A-8, G-52). As a matter of fact, however, many cases are treated in outlying hospitals. Artificial eyes are supplied by the State to all who require them; a special hospital has been established for providing them.

A powerful society called 'Les Amis des Soldats Aveugles' (Appendix D-5) has opened a large and very efficient establishment for the

professional re-education of the blind as an annex of the 'Hospice des Quinze-Vingts'. This 'Maison de Convalescence' (Appendix A-8) has places for from two hundred to three hundred men; blinded soldiers also receive professional instruction, under less fortunate circumstances, in various centers of re-education (Appendix A-5).

It is insisted both that a blind man can be self-supporting and that the first thing to be done with a blinded soldier is to convince him of that fact. The good humor and the very evident spirit of active hope for the future existing among the inmates of the 'Maison de Convalescence' is proof that such a conviction has been given to each of them. Open pity has no place in this institution and the word 'blind' is never mentioned there. Its aim and that of similar institutions, such as the Association Valentin Haüy (Appendix D-63) is to prevent blinded men from returning to their homes until they have both learned to be blind and have acquired, at least, the elements of an appropriate re-education.

The first thing taught to patients entering the 'Maison de Convalescence' is to 'learn to be blind'. They are taught all the little tricks by which a blind man finds his way about with or without a stick. The devotion and care given by the staff to the inmates, especially to the newcomers who are 'learning to be blind' is very marked.

All the blind should learn 'Braille', the system by which they may read and write. At present there are not many books printed in Braille; but Ernest Vaughan (Appendix E-28) has devised a method of printing of great simplicity (Appendix G-53). One of its chief advantages is that type for the printing of books in Braille may be set by those who have a knowledge only of the ordinary alphabet. His method and the low price of his presses and type should result in a great lessening in the cost of books for the blind.

There are many occupations opened to the sightless. In choosing an occupation a blind man, like any other disabled soldier, should not be permitted to take up an employment in which he can never earn a living in competition with those who are sound. So it is that, as a rule, the blind should follow occupations which may be

carried on at their homes and which will not put them to the expense of transportation or of guides. It is for this reason that piano-tuning is not always a good occupation for a blind man. At the 'Maison de Convalescence' men are being successfully taught coopering, bootmaking, upholstering, chair-bottoming, brush-making, broom-making, telephone-operating, massage and typewriting; these trades do not by any means exhaust the list of occupations which the blind may wisely follow. They can, indeed, successfully perform almost any operation which does not require much change of place and does not require a constant perception of objects or of distances of a magnitude of less than, about, one millimeter.

The organization of the 'Maison de Convalescence' has been most carefully thought out. The members of the staff and the duties for which each is responsible are clearly stated in printed regulations. In addition, each member of the subordinate staff receives a card clearly stating his or her duties (Appendix F-10, F-11).

The careful thinking which produced the internal organization of the 'Maison de Convalescence' is characteristic of 'Les Amis des Soldats Aveugles' (Appendix A-1). In addition to providing a most excellent education to those coming under its care, it assists them to find employment and helps those who work at home to find a market for their produce. Moreover, the paternal care exercised by the society inquires into the family life of its wards and does everything that can be done to secure to each of them a comfortable and happy home. By means of a special organization the society keeps in constant touch with every man who has passed through its school; and the file, in the records of the society, opened for each man on his admission to the school, is closed only at his death.

VIII. PROFESSIONAL RE-EDUCATION OF THE DEAF

A considerable number of soldiers have been discharged because of deafness, rendering them incapable of performing their duties. In some cases the deafness is temporary, in others it is permanent.

Because many deafened have suffered from a form of deafness which is but temporary, rapid

cures have been accomplished, apparently, by various methods of treatment, for the efficacy of which extravagant claims have consequently been made. As a matter of fact, no new methods of extraordinary value for the treatment of deafness have been devised. The best method of doing so is, still, listening to the spoken voice coupled, naturally, with appropriate medical or surgical treatment (Appendix G-24-G-30).

Much can be done to lessen the disability suffered by those who have become permanently deaf. They must, of course, first of all, receive whatever complete medical treatment their condition may demand. Then, they should be taught methods by which, although their hearing is defective, they can both communicate with others and receive communications from them. One of the methods by which they may do so is the deaf and dumb alphabet; it is well known. It is not so widely known that the deaf can use spoken language to communicate ideas. They can do so by lip-reading.

All deaf soldiers, even those who are not very seriously deaf, should receive, at least, elementary instruction in reading the lips of those who speak. Those who have become, or are likely to become, so deaf that they cannot hear any voice should, in addition, receive instruction by which they may, as it were, read their own lips and learn to know, by muscular sense, when they pronounce their words correctly.

Because deafened soldiers have once spoken it is very much easier for them to learn lip-reading than it is for children who have never been able to hear; nevertheless, none but experts should be permitted to attempt to give them instruction in lip-reading.

While enough may be learned of lip-reading in a few weeks to be of the greatest usefulness to one who leads a simple life, a much longer course of instruction is necessary before one can become an adept. Soldiers must not be allowed to expect too much from lip-reading; it can be of wonderful value, but it can never be anything but a poor substitute for hearing.

There are in France several schools which teach lip-reading to soldiers who are deaf enough to require instruction. One of the best of them is the 'Institution Nationale des Sourds-Muets'

(Appendices A-11; G-24-G-30). It has been established for well over a century and its Directors have an excellent knowledge of the capabilities of the deaf and dumb. They know, from much experience, that there are many occupations in which a deafened man can usefully earn his living in competition with those who hear. Among the trades in which the deaf and dumb are particularly successful are the cultivation of the soil, printing, and tailoring.

IX. ESTABLISHMENT IN CIVILIAN LIFE: GENERAL

At present, disabled men have little difficulty in obtaining employment; all of the graduates of the Lyons school have been well placed and employers are constantly applying to it for assistants. Before the war there were more than 600,000 foreign workmen in France; most of them have left the country. Their absence, coupled with the mobilization of about four million soldiers—one-tenth of the population of France—has created a tremendous demand for labor, of any sort, in almost every industry. At the end of the war, conditions will change.

It is not anticipated that there will be a surplus of labor after the rush of those seeking employment at demobilization is over; but it is thought that before many years have passed, it will become increasingly difficult for a disabled man to obtain a desirable position, unless some special ability more than counteracts the incapacity resulting from his disability. Disabled men will have no difficulty in obtaining employment immediately after the war when there will be the greatest good-will towards them; the difficulty will come in several years when the way in which the disabilities were acquired has been forgotten and the fact alone remains, in the minds of the people, that there are thousands of men receiving pensions in France who, although so favored and less productive than sound men, are attempting to compete on equal terms with them. The possibility of such a difficulty is considered to be so serious that the question is now being discussed by an authoritative commission composed of delegates from Labor Unions and from Employers' Associations.

The centers of re-education will do their best to give exceptional ability to those passing

through them; but, there will inevitably be a considerable number of disabled men whose abilities will never be out of the ordinary. In order to secure an employment for these, various legislation has been proposed.

For five years after the war (Appendix G-45a), all positions, which it is shown by training and examination, that they can adequately fill (Appendix G-44, G-45) will be reserved for disabled men and their dependents (Appendix G-47), not only in governmental departments, but also in companies enjoying public concessions or subsidies; the number of men who are expected to receive governmental appointments is very considerable. Preference will be given to those who have large families and definite procedure is to be drawn up to give effect to the law. They will constitute about two-tenths per cent. of those wounded. There is no intention to give disabled men governmental employment which they are incapable of performing; to do so would give them no permanent advantage and would subject them to the contempt of their fellows. Propositions for laws further-reaching than this have been made; it has been suggested that all engagements under which working-men were employed shall be considered to have been merely suspended, not broken, by the war (Appendix G-51); it has also been suggested that all factories should be compelled to reserve a percentage of their employment for disabled men and that commissions established in each district should decide both what that percentage should be and the rate at which disabled men should be paid (Appendix G-46); there is little possibility that these latter proposals will be adopted.

Many of the societies supported by private effort and subscriptions have been active in finding employment for disabled men (Appendix D, introduction), and various official bodies have moved in the same direction.

It is now thought to be most undesirable to establish any system by which occupation will be offered to, or sought by, wounded men as a distinct class. It is felt that if employment bureaus are maintained for the use of disabled men alone, it will inevitably result in the wounded being treated as a special, necessarily

an inferior, class and that they will consequently be in danger of being offered a lessened wage. For that reason, it has been planned to extend and use the employment bureaus already established by the Minister of Labor for both disabled and sound men. In addition, the 'Office National de Placement des Réformés et Mutilés de la Guerre' (Appendix A-14) will, perhaps, be entrusted with handling the employment of disabled men in government positions and in Paris; and small employment bureaus where offers of employment will be received and filled, will probably be maintained, for their own use, at each of the centers of re-education.

At the outbreak of war there was no complete system of labor bureaus in France. Although a law passed in 1904 had made it obligatory for municipalities of more than 10,000 inhabitants to establish a municipal employment agency and for other communities to open a register of situations offered and wanted; only one hundred labor bureaus had actually been established.

The stoppage of industry at the commencement of hostilities made idle about two million workers in France; to them were added about one million persons, refugees from Belgium and from the invaded French Departments. The advantage which might be drawn in France from a proper system of labor bureaus was emphasized by the useful results obtained from the temporary agencies established, in this emergency, to find occupation for this enormous number of unemployed persons.

At the end of the war, it is expected that there will be many discharged soldiers without occupation; to their numbers will be added thousands who will be thrown out of employment by the closing of the munition factories. Some machinery must be provided for securing employment for these persons as well as for those who have been disabled by injuries received during the war. Whatever machinery be adopted, it must have branches throughout the country and these branches must be in close touch with one another. It is intended that the employment bureaus, already provided for by the law of 1904, shall be opened in every community. In each Department a central bureau is to act as an exchange for coordinating the work of all the bureaus in

that Department. At the end of December, 1915, the Minister of Labor desired the Prefect of each Department to establish a system of employment bureaus in his Department (Appendix F-30); the cost of maintaining them will be borne by the Minister of Labor. The plan upon which they are being organized has been inspired, in part, by the success of the British Labor Exchanges, (Appendix G-3); until they are established the Prefects have been instructed (Appendix G-32) to use existing employment bureaus in providing employment for returned soldiers. The Minister of Labor has also instructed his factory and other inspectors to assist the bureaus in their work by keeping them informed of establishments which are willing to give employment to ex-soldiers.

The operations of all bureaus occupied in finding employment for disabled men will be under the control of the Office National des Réformés et Mutilés de la Guerre (Appendix A-13). As time goes on, it is probable that the private societies, at present, attempting to find employment for ex-soldiers will gradually disappear, both because of official discouragement, and because of a gradual subsidence of the present keen public interest in the welfare of disabled men.

The Office National des Réformés et Mutilés de la Guerre is a permanent body; one of its duties is constantly to occupy itself with watching all matters affecting the interests of men disabled in the war. There will be much for it to do. One of the matters requiring constant examination is the occupations which might be followed by the disabled; it is certain that thought and experience, coupled with the modification of manufacturing routine or of existing machinery, will result in the opening up to men, lacking the use of legs or arms, of many occupations at present closed to them.

One industry in which official foresight is placing many disabled men is the manufacture of orthopedic appliances. The existence in France of perhaps fifty thousand men who will wear, and will require repairs for, prosthetic appliances of various sorts gives an opportunity for the creation of an important new industry. An artificial limb must usually be renewed at the end of a few years; in the meantime it requires

repairs. That the manufacture of artificial limbs is a profitable industry is evident from the fact that they are sold, at the current prices—between 200 and 250 francs for an artificial arm—for about three times the cost of their production. Considerable numbers of men are being trained as manufacturing orthopedists at the centers of re-education (Appendix A-3, A-10); it is well that this is so, if France is to keep the supply of artificial limbs for her wounded in her own hands, because, already, German manufacturers of artificial limbs are sending out circulars touting for business in France!

The Government fully appreciates that France is, above all, an agricultural country. It does everything possible to direct discharged soldiers to occupations connected with the cultivation of the soil. The agricultural schools have been opened to them; and a law has been proposed (Appendix G-39) suggesting that the State should give to suitable disabled men financial assistance enabling them to acquire rural properties.

Soldiers who, often after a course of re-education, are ready to assume their chosen positions in civilian life will frequently require assistance in order that they may be established, ready for work, in their workshops or on their farms. The artisan will require tools, material, and money to secure his subsistence until his business is established; similarly, the farmer will require help in purchasing live stock, tools, and seeds before he can commence the cultivation of his land. At present, artisans can obtain small loans, without security, from various societies such as the 'Aide Immédiate aux Mutilés et Réformés de la Guerre' (Appendix D-2) or the 'Association pour l'Assistance aux Mutilés pauvres' (Appendix C-1). Farmers are able to obtain assistance from various 'Land Banks'. As a rule, those who have passed through a center of re-education will not require so much assistance as those who have not done so. It is part of the policy of most centers to assist their pupils to earn and to save money, so that they may have a small capital when they leave (See page 30). In addition, some schools give their graduates an outfit of tools. It has been proposed that a special bank should be created for the

purpose of providing financial assistance for men who require it on re-entering civilian life.

There will inevitably be a comparatively small number of discharged soldiers who, although receiving pensions, will be incapable of looking after themselves entirely. It is the policy to allow men of this sort to be cared for, as much as possible, in the families of their relations or friends; their pension will be sufficient to bear the cost of their maintenance. Consequently, although institutional treatment may be necessary for some—violent maniacs, etc.—there will be no necessity for the establishment of old soldiers' homes. Indeed, it is anticipated, were such homes established, that there would be few men who would consent to enter them. The vast majority of the present armies are men accustomed to home life; the soldiers for whom a past generation established 'homes', like the 'Invalides', were professional soldiers who had spent most of their lives in barracks and had never had a home of their own.

It is possible, also, that it may be necessary for the State to establish a few institutions, maintained at a loss, in which disabled soldiers, incapable of earning a livelihood in commercial life, may be able to obtain a decent return for the labor of which they are capable. There is little to recommend workshops of this nature.⁸ They can rarely engage in an important industry for fear of being accused of unjustly competing with private enterprise; they are expensive and, from their very nature, it is impossible for their atmosphere to be anything but depressing (Appendix A-2; Appendix G-19-20). Certainly, they will not be established before the need for them is pressing.

Already two societies have been formed among disabled soldiers. They are the 'Union Fraternelle des Mutilés et Convalescents' and 'La Mutuelle des Blessés de la Guerre'. The first of these societies was organized to help ex-soldiers to obtain employment and to give assistance to those who are out of work. It

⁸ In order to supply occupation for disabled men who cannot possibly work in commercial workshops it may be necessary to establish special workshops. This will probably be necessary for epileptics and others suffering from major disabilities of the nervous system especially.

derives part of its funds, at least, from private benevolence. The second society has similar objects, but it is supported entirely by the subscriptions of its members. 'Aide et Protection, Société Nationale des Secours Mutuels entre tous les Mutilés, Blessés, et Réformés de la Guerre' has been established in Paris for the purpose of securing concerted action and mutual protection among disabled men. It is supported by members' fees and by accepting contributions by private benevolence. (Appendix G-79.) The 'Association Nationale des Mutilés de la Guerre' is another body with similar objects which has its head office at Paris. It is a powerful organization and has a very complete and ambitious program. (Appendix G-83, G-83a.)

At present, it is usually thought that there is no danger of ex-soldiers banding themselves in organized societies in order to secure privileged advantages by political action. It is possible, however, that certain individuals may endeavor, by generous subscriptions and other means, to secure a personal following among the members of such societies in order to further their own political ends. It is certain, none the less, that wounded men will be strong in insisting upon their rights; this fact constitutes an additional reason for securing an accurate appreciation in the national mind of exactly what those rights are.

X. ESTABLISHMENTS IN CIVILIAN LIFE: PENSIONS

When the war commenced, the compensation granted to soldiers and sailors for injuries received during their service was given in accordance with laws of long-standing, drawn up for dealing with men who were, in large part, professional soldiers and sailors (Appendix G-59, G-60, G-61). One of the most important of the Pension Laws is known as the Law of 1831.

The war had not lasted many months when it became apparent that the old laws did not fit present conditions and that it would be necessary to change them in order to make them meet modern needs; various measures have been proposed to that end. A most comprehensive scheme for the modification and readjustment of the Pension Laws has been brought forward by the Government (Appendix G-49). Its adoption

has been delayed because its provisions, in some respects, conflict with rights acquired by certain individuals under the old laws. It is, however, certain (Appendix E-18, etc.) that its main provisions will become law; and, whenever there is conflict with the old regulations, that the individuals concerned will be allowed to choose whether they will benefit under the old or the new law.

The principles underlying the pensions regulations are exactly those which form the foundation of the recommendations made in a Report of the Canadian Pensions and Claims Board sitting at Folkestone, England, to the Minister of Militia (Appendix F-36).

It is recognized that France is fighting a national war in which each citizen has an equal interest; it is, therefore, agreed that all detriments resulting from that war shall be equally distributed among Frenchmen.

There are many difficulties preventing complete realization of this principle in practice; but the intention to realize it, as far as possible, is evidenced in much recent legislation. For example, it has been decided that all losses suffered by those resident in the invaded French Provinces are to be made good by the State; again, much-discussed legislation is at present being passed through the Chambers with the intention of equalizing certain losses sustained in connection with real estate and rents in consequence of the war. Detailed mention of measures taken to secure the restitution of economic loss has no place here; the Pension Laws will be passed with the purpose of making good to disabled men losses which they have suffered through physical or mental detriment so that they shall not suffer more from the war than every Frenchman must.

Because men, medically unfit for service and discharged without pension (Réformés No. 2) required support, even although their disability was the result of disease not due to military service, it seems probable that temporary living allowances will be made to such men until, under the new law, they either receive pensions or become self-supporting. (Appendix G-73). The unfairness of contributing nothing toward the support of men who have broken down in

service, although their disease was not originated by service, has become apparent.

It is agreed that pensions are to be awarded to disabled men in direct proportion to the bodily incapacity resulting from disease or injury caused by their service. The degree of incapacity resulting from a given injury is estimated with the assistance of the '*Guide-barème des Invalidités*' (Appendix G-31); this 'Disability Table' has been drawn up by the Commission Consultative Médicale. It is largely based upon experience gained in the administration of the Workman's Compensation Act (Appendix G-62, G-63). It was composed because such a guide had been found to be absolutely necessary (Appendix E-25) in order to secure sound and uniform estimations of incapacity by the medical boards. Upon them is placed the responsibility of deciding the degree of incapacity existing in an injured man, and, consequently—since the amount of the pension depends directly upon the degree of the disability—of fixing the grade of pension to be awarded.

One or two incongruities in the table exist, because, in drawing it up, it was necessary to make it conform with the old pension laws; for example, the table, governed by the law of 1831, makes no distinction between the degrees of incapacity resulting from amputations of the arm above and below the elbow. (It is probable that in the pensions legislation such incongruities will be removed and that those who enlisted when former laws were in force will be permitted to choose under which code they benefit.)

The amount of the pension awarded depends entirely upon the degree of the disability. It is in no way influenced by social position or by previous earning power. A pension is the inalienable property of the individual to whom it is granted and it cannot be diminished by reason of any factor other than a lessening of the incapacity in respect of which it is granted.

A pension may be refused to a man whose incapacity is the result of an injury due to his own intentional act. In practice, although a man may legally refuse to submit to an operation involving the shedding of blood, an unreasonable refusal to accept a simple operation which would diminish his disability is made a reason for

estimating his incapacity at a lower rate than the existing disability would otherwise justify. It is also certain that, in the near future, the granting of a pension will, in some respect, become conditional upon the acceptance of professional re-education by those for whom re-education is held to be desirable.

A proposal to increase the amount of the existing French pensions has already been accepted (Appendix G-49; *q.v.*). It is probable that their value will be still further augmented in the laws finally adopted. The factor which will govern the amount eventually decided upon is that the pension granted in respect of a totally disabled man should be sufficient to secure a decent livelihood to him and to his family. (It is asserted that, in the country, a family owning their own house and a small plot of land can easily support—decently—a man, his wife, and four children on three francs a day.)

The compensations granted for injuries are of three sorts; a permanent pension granted for an incapacity which will not vary; a renewable pension granted for an incapacity which may become greater or less; and a gratuity, an assistance given once for all, to discharged soldiers, or to their dependents, who may require assistance and are not entitled to a pension.

It has been decided that governmental employees will be entitled only to whichever of the pensions will give them the greater benefit (Appendix G-50) when they have become entitled to pensions, as a result of injuries received during the war, both in the department in which they were formerly employed and under the regulations governing war pensions.

French pensions are, at present, paid quarterly, and in future they will probably be paid at shorter periods. Pensioners are often poor people, who live from hand to mouth. Consequently, it frequently happens that they find themselves without money before the next quarterly payment of their pension is due. Although it is illegal to lend money on pensions there are usurers who do so. It has been proposed (Appendix G-38) that a severe penalty be inflicted upon those found guilty of doing so. This law has been passed. (See Appendix G-38a.) This law prohibits advances of every description upon

the security of pension. Lender will be punished by imprisonment. Contracts made between claim agents and possible pensioners are null. The National Savings Bank shall have the right to make advances to pensioners. At the same time the temptation to borrow will be removed by permitting pensioners to obtain advances on their pension, under certain conditions, from the State through the Post Offices.

It is probable that this is the only respect in which anticipation or commutation of pension benefits will be permitted. It has, however, been proposed (Appendix G-39) that disabled men should be allowed to borrow money, on the security of their pension, from the State, on very generous terms—especially to married men—in order that they might purchase and become the owners of the land upon which they settled.

XI. ESTABLISHMENT IN CIVILIAN LIFE: INSURANCE

A disabled man is often more exposed, by reason of his disability, to accidents than one who is sound; an accident often results in a more serious incapacitation to a man disabled than it would in one who was whole; and, lastly, the injury which disables a man often results in a lessening of the length of time for which he might otherwise have been expected to live—his expectation of life.

The following examples will serve as illustrations of the preceding statements. A man who has lost one eye is evidently more exposed to accidents than is one who has two eyes and whose field of vision is consequently wider. If a one-eyed man loses the eye remaining to him the accident which deprives him of it leaves him, not one-eyed, but totally blind; therefore, the incapacity resulting from that accident is greater than it would have been in one who had been sound and had had two eyes. There is no doubt but that the expectation of life of those who have suffered from certain diseases, such as rheumatism, may be reduced thereby. For these reasons, all forms of accident and life insurance, or of annuities, or of any operation dependent in any detail upon averages calculated for sound men, will cost more than they normally should to disabled men.

France has realized this and has recognized the principle that the increased cost of accident insurance to disabled men should not be borne by them. As a whole, no provision has been made for bearing the increased cost of annuities and life insurance; although there is a proposal that arrangements be made permitting pensioners to insure their lives on advantageous terms in favor of their wives.

Various methods of meeting the situation have been proposed. Although it is recognized, as a principle, that the increased cost should be borne by the State, it is probable that the method adopted will be to provide a fund, contributed to by employers of labor and by the Insurance Companies, and administered by the Minister of Labor, from which any excess in the cost of accident insurance to disabled men will be borne.⁹ (Appendix G-43-43a and 43b).

Very early in the war, Italy realized the necessity of assisting those who had been disabled by the war to secure re-employment in industrial establishments and it was decided,

1. That these disabled by the war who had been re-employed should in case of accident, be entitled to receive complete compensation for the accident without consideration of their pre-existing disability.

2. The insuring bodies who pay the compensation must in all cases pay the whole insurance.

3. To facilitate the re-employment of men disabled by the war the employer must not be asked to pay a special super-premium; but the employment of such disabled men, when the number is greater than a certain figure, must be taken into consideration as an element for the valuation of the risk for which insurance is claimed. The principle upon which this legislation is based is alike in Italy and in France.

In most countries it is recognized that increased cost of Insurance should be a charge upon the nation; a convenient method of distributing the

⁹ The legislation providing Accident Insurance for disabled men is quoted in full in the first annual report of the *Office National des Mutilés et Réformés de la Guerre*. (Appendix G-69a.) The law (Appendix G-43c) is dated the 25th of November, 1916, and is called *Loi Concernant les Mutilés de la Guerre, Victimes d'Accidents de Travail*. (See page 30 of the annual report, Appendix G-69a.) By the provision of this law employers are not liable for the proportion of any accident resulting from war disability.

cost among the collectivity is considered to be obtained by making the increased cost of the insurance a charge upon industries. (Appendix G-85.)

XII. EXISTING ADMINISTRATIVE PROCEDURE

When an infirm soldier or sailor is held, by the medical men attending him, to be no longer fit for Service, he appears before a Board (Commission de Réforme) as soon as his treatment has been completed.

If the Commission is of the opinion that the man should be discharged, a recommendation to that effect is forwarded to the Minister of War; upon his acquiescence, given by a body appointed for that purpose, depends the effect given to the recommendation. The discharge may be refused or it may be granted with a pension (Réformés No. 1), or without one (Réformés No. 2).

A man who has been recommended for discharge may be given sick-leave of indefinite duration while awaiting confirmation of his discharge—in order that he may not be unnecessarily detained in the hospitals.

In order to secure uniformity and a high standard in the work of the Medical Boards (Commissions de Réforme), it has been ordered that there shall be but four such Boards in each Army region. Each Board consists of two members—a surgeon and a physician; one of them should have had experience in the legal aspect of accident work in civilian practice. The Boards have the power to consult specialists and must sit at a hospital depot where every means for diagnosis is at hand. (See Ministère de la Guerre, Circulaires et Instructions Diverses, 15 Mars 1916; (Appendix G-75.)

In the district which it serves, each Board has alone the power to recommend men for discharge and for pension. It is the duty of the Board to see that the military and medical papers of those dealt with by it are in order; the importance of accurate documentation of those recommended for pensions is insisted upon. In order to prevent any possibility of mistaken identity, it is recommended that the finger prints of men recommended for pensions should form part of their papers. (Appendix G, Ministère de la Guerre, Circulaires et Instructions Diverses, 15 Mars 1916.)

Because there has been great delay in completing the papers of men proposed, for pensions or discharge, the responsibility for obtaining and maintaining a complete set of documents for each man has been placed upon the Medical Officer responsible, in each instance, for the treatment. A 'Pension Office' for the preservation of these papers is maintained in every hospital.

The system employed in the Army for recording the medical history of a patient is not a complete one, there is no 'Medical History Sheet' nor 'Medical Case Sheet'. In the Colonial infantry, however, a Medical Case Sheet ('Feuille de Clinique') is used; it is always retained in the hospital where the man was last a patient and can be obtained, on demand, from it. The Colonial Infantry also uses a document which serves the purpose of a Medical History Sheet (*Livret Militaire*). Many hospitals maintain excellent records of the clinical history of cases treated by them. The Inter-Allied Conference which met in Paris on May 11, 1917, expressed the strong opinion concerning the great desirability of keeping accurate detailed records of nervous disabilities (Appendix G-78).

From an administrative point of view, there are three stages in the return of a wounded soldier to civilian life: the first extends from the incidence of his injury to the end of his treatment ('Consolidation of the Injury'); the second, from the end of treatment to the liquidation of the pension; the third, from the liquidation of the pension to the acquirement of a self-supporting earning capacity.

The administrative bodies concerned with the activities of these three stages are the Ministers of War—or of the Navy—of the Interior, of Commerce, of Agriculture, and of Labor.

The precise limits of the influence of each of these Ministers has not yet been accurately fixed; there seems to be some difficulty in doing so.

In a general way, the control of the Minister of War—or of the Navy—ends with the completion of the discharge of a man from the Army or Navy.

The Minister of the Interior is responsible for the provision of centers of re-education and for the maintenance of men attending them; and that, although the center of re-education con-

cerned be established in connection with technical schools directly under the control of the Minister of Commerce, or with Agricultural Schools directly under the control of the Minister of Agriculture. As a work of assistance, each center of re-education is under the control of the Minister of the Interior; while, in technical matters, it is controlled by the Minister of Commerce, or of Agriculture, as the case may be.

The Minister of Labor controls all matters connected with the employment of men who are ready to assume a position in civilian life.

The manner in which activities connected with hospital or functional treatment and with the supply of artificial limbs are administered is sufficiently indicated in the sections dealing with these matters.

From an administrative point of view, centers of re-education may be divided into three types according to the way in which they are established and maintained: first, institutions under the control of the State (Appendix B-1)—Saint-Maurice (Appendix A-10) is, at present, strictly speaking, the only such institution; second, centers created by public bodies and attached to institutions giving functional re-education (Appendix B-3, B-5, etc.); third, centers supported by private initiative and unattached to institutions giving functional re-education (Appendix B-11, etc.).

The National Institute for the Professional Re-education of Disabled Men (Appendix A-10) is situated at Saint-Maurice. It is placed beside the Orthopedic Center established in the Buildings of L'Asile Nationale des Convalescents (this is a Military Hospital and is under the direction of the French Army Medical Service).

Connected with these two institutions is a workshop where artificial limbs are manufactured. In this way, secondary hospital treatment, functional and professional re-education, and the provision of artificial limbs are, ideally, carried out in closely coordinated institutions. The expense of the maintenance of men attending Saint-Maurice is borne by the Minister of War, or of the Navy, until they are discharged from their service; after discharge, it is borne by the Minister of the Interior.

Centers of re-education of the second type are established by public bodies such as a Department, a Commune, a Board of Trade, a Hospital, etc.

The body establishing such centers of re-education must supply the necessary buildings and workshops. The expense of maintaining them is borne in part, and according to its ability, by the body which establishes them, and partly by the State. The parent body receives its funds from subscriptions and contributions obtained from various official or private sources; the contribution from the State is paid by the Minister of the Interior. It is, of course, understood that the maintenance of undischarged men attending such institutions is borne entirely by the Minister of War, or of the Navy.

The contribution of the State will only be granted to approved centers. In order to receive official approval, it will be necessary for the centers to submit their projected budget, their program, and particulars of their organization. Detailed information will be required from each center concerning the number of inmates which it can accommodate, the trades taught, the manner in which instruction is given, the nature of the equipment, the duration of apprenticeship, prospective employment, the probable salaries to be gained, and so on.

The professional schools under the Ministers of Commerce and Agriculture come under this arrangement, whether they are attached to centers of functional re-education or not.

A considerable number of generous individuals or societies have organized centers of re-education of the third type. They will receive State assistance when it is thought advisable to give it; but the State will make no grant without having considered, and approved, full particulars concerning the center. The amount granted by the State will depend upon the importance of the center and the number of men which it teaches.

That the State has once made a grant conveys no presumption that it will continue to do so and the acceptance of a grant gives the State the right of inspection.

One of the great advantages of this method of organization is that it is exceedingly elastic and leaves full liberty of action to local authorities

who, inevitably, know best the type of re-education most suited to the needs of their own region.

Premises of considerable size are required for housing a center of re-education, capable of holding a few score men; the buildings, sequestered from the Catholic Church a few years ago, have been found exceedingly useful in providing accommodation for centers of re-education and for hospitals.

As a rule applications for admission to a center of re-education will be made by a disabled man, through military authority, to the Director of the Service de Santé of the region where he happens to be. Disabled men who have been discharged from their service and are at their homes may apply for admission to a center to its Director who will arrange the necessary formalities for them.

In making application, the nature of the trade which it is desired to follow will be stated and also the name of the center of re-education to which admission is desired. The right of decision as to where and when a man's professional re-education will commence rests with the Minister of the Interior; in case of need, application for admission to a center of re-education may be made to him directly.

The State pays the transportation expenses of disabled, blind and tubercular men to the institutions provided for their care.

Men not yet discharged from their Service continue to receive their pay as soldiers during their stay at a center of re-education. Those who are receiving pensions continue to do so. Those who are awaiting confirmation of a recommendation for discharge receive a subsistence allowance of one franc seventy centimes, daily; since, as inmates of a center of re-education, they are fed and lodged by the State, one franc twenty centimes of that allowance is retained by the center and fifty centimes (ten cents) is left to the man as pocket-money.

In order to encourage men to enter centers of re-education, the State promises to consider first the recommendations for pension of those who are undergoing re-education. For the same reason the State returns a part of the one franc twenty centimes retained to those who work

well; the sum usually returned is fifty centimes daily. A prize of the same amount is given to men already receiving pensions, whose conduct has been satisfactory. Of course, those who are working at a trade are paid for that which they produce in accordance with its value.

The amount given by the State to men working at centers of re-education is small. It is felt, in order to encourage men to do their best, that it should be larger. It is for that reason that the Lyons school gives one franc daily to each of its inmates who is not receiving a pension. Other centers place all amounts deducted from a man's allowance to his credit and return them to him when he leaves; some centers, in addition, add an equal amount from their own funds. Men are urged to save and to deposit their economies in a Savings Bank; one is sometimes established for that purpose in the center. If a man is careful and works well it is possible for him to have a credit of several hundred francs at the end of his course.

Several societies (Appendix D-2, D-13, D-32) give grants of as much as three francs daily to men attending centers of re-education. At one school, all the inmates receive three francs a day from one society; another granted an additional one and a half francs to those who were externes; a third society gave those who were married an additional fifty centimes a day. It is not desirable that this state of affairs should exist, among other reasons, because it gives the men wrong ideas of their economic value by permitting them to earn money too easily.

It is probable that grants will not be made by societies in this way for much longer; if for no other reason, because they will no longer be able to obtain the money to do so, now that the number of men attending centers of re-education is becoming large. Also, contributors are becoming poorer and chary of contributing to private societies; the view that the State should obtain, by public taxation, all the funds necessary for public services is becoming general.

In order to provide for the maintenance of the families of men who are attending centers of re-education, the government continues the separation allowances which were paid while the men, in respect of whom they were granted, were

soldiers; or, if a family has become entitled to a pension, subsistence allowance or pension, is paid, whichever is the greater.

It is being considered whether it would be desirable for the State to grant subsistence allowances to provide for the maintenance of men and their families after they had been prepared to assume a position in civilian life and before they had become established and able to support themselves.

For administrative purposes, centers of re-education are considered to be hospitals. Like hospitals, they receive from the State a grant of, about, one to one and a half francs, a day for each inmate.

The funds expended in connection with the re-education of disabled men are supplied by special budgets voted for that purpose to the credit of the Ministers concerned. The State makes certain that the work of the centers of re-education is properly carried out by the visits of Inspectors. As a rule, these Inspectors are men already employed, under the Minister concerned, to control the institutions to which the centers of re-education have been attached. So much goodwill and anxiety to do well is everywhere present that the Inspectors have not much to do; those maintaining centers of re-education eagerly accept advice from the Ministers responsible for their control.

The initiative in matters connected with professional re-education rests very largely in the hands of the Minister of the Interior. It is true that an Interministerial Commission, formed at his desire and meeting under his presidency, advises him, after discussion of matters placed before it; but it seems to be little more than a covering body, to be entirely under his control, and to have no initiative power.

It is intended that the *Office National des Mutilés et Réformés de la Guerre* (Appendix A-14) shall have the responsibility of securing a proper coordination of all matters connected with the return of discharged soldiers and sailors to civilian life (Appendix A-13, F-29, G-54).

The centers of re-education, existing at present, have accommodation for less than four thousand disabled men (Appendix B); should a greater number require re-education, it will be

necessary to increase that accommodation. Ample funds are forthcoming for that purpose; already four and a half million francs have been placed at the disposal of the Minister of the Interior. The cost of maintaining centers of re-education, such as those at Saint-Maurice and Lyons, (Appendix A-10, A-4) is, everything included, about five and a half francs per day per man.

The recommendation, made by a Medical Board (*Commission de Réformé*), that a man be discharged, with or without a pension, is sent for consideration to the Minister of War. At his office, the Commission Consultative Médicale makes certain that, from a medical point of view, the finding of the Board is a reasonable one. The final approval of a proposal to grant a pension comes from the Conseil d'État; this body has a special branch established to consider cases in which the pensioner is dissatisfied with the pension granted to him, or her.

The part played by public and private bodies in assisting disabled men to re-establish themselves in civilian life has been indicated in preceding paragraphs. It is considered desirable to utilize private benevolence in providing for the return of disabled men to civilian life, so long as its activities can be controlled and directed into proper channels by competent authorities. The unnecessary waste and useless expenditure of energy consequent upon the existence of numerous, small, ill-coordinated societies is fully recognized. Legislation is being designed to control both them and the terms upon which societies, or individuals, will be permitted to solicit or receive subscriptions. It is probable that only those which have been approved and have received permission to do so will be permitted to accept contributions and that those which accept them must submit to Government control and inspection. Already, the police have power to prevent subscriptions from being solicited by obviously unworthy collectors; and there is legal machinery by which charitable societies can be required to give account of funds entrusted to them.

It is possible that the official control may be provided by the establishment of a body upon which, in each Department, the principal voluntary organizations will be represented. (See Appendix G. Bulletin des Lois de la République

Française. First Section and Journal Officiel, 26 Janvier 1917 and 28 Janvier 1917.)

XIII. LIQUIDATION OF THE WAR

Not long after the commencement of the war, it became very evident to those who had competent knowledge that many changes would be made in the laws, regulations, and practices by which France had been accustomed to return her soldiers and sailors to civilian life; it is necessary to do so in order to secure harmony with the conditions surrounding the present war. As has been suggested in the introduction and in the preceding section, a new procedure is in process of formation and much new legislation is being considered or has already become law.

Whatever the procedure finally adopted may be, it is very certain that it will tend towards a realization in practice of the very definite democratic principles underlying French national organization.

A very able Report (Appendix G-41), by MM. Lefas and Masse (Appendix E-20), creates the phrase 'The Liquidation of the War'. This Report expresses the universal belief that the liquidation, the winding up, of the war is a matter of the very first importance. By the Liquidation of the War is understood all those operations which will be concerned in securing the reconstitution of normal national life at the end of the War.

To secure a proper liquidation of the war in matters connected with discharged soldiers and sailors alone will be a work of extraordinary dimensions; in order that it may be well done it is necessary that a proper organization for its execution should exist. Excellent legislation concerning this matter has been and will be adopted; but the existence of good laws and proper regulations will be useless if a competent organization is not provided to insure their operation. Urgent efforts to supply that organization are being made. It is recognized that it must be prompt and accurate in its work. While the public will realize its difficulties and excuse some slight delay in its operations, because of the enormous amount of work with which it must deal, no unnecessary delay, due to lack of forethought in its organization, will be forgiven.

In their Report, MM. Lefas and Masse classify the measures which they advise for securing prompt liquidation of the war into three groups:

1. A simplification of the records at present kept.
2. A simplification of the procedure by which pensions are now granted and paid.
3. The establishment of a central body, responsible for the administration of the whole question.

Matters included under the first heading are details to which it is unnecessary to refer here.

Under the second heading, it is pointed out that it would be useless to initiate an ideal organization in any one of the departments at present connected with the administration of pensions, unless similar improvements were made in the organization of all other departments concerned in the matter. Only by doing so can the desired expedition in the liquidation of pensions be secured.

The great bulk of the Report is occupied in a discussion of the matter referred to under the third heading.

The discussion is prefaced by observing that the mass of business is so enormous that it will be insufficient to merely increase the size of the offices and the number of the clerks employed, before the war, in peace time in dealing with it. It will be necessary to reconsider the whole question and to re-design the machinery formerly dealing with it in order to secure prompt and economical execution.

It is recommended that an independent pension service should be created. It is recommended that this service should be subdivided into eight or nine appropriate sections. It is recommended that this service (*Direction des Pensions et Secours*) should pay pensions to soldiers and sailors, and to civilians; it should also pay any gratuities given to indigent soldiers and sailors, or their dependents, who are not entitled to pensions. The amount of work which such a service would be called upon to do is suggested by the following figures:¹⁰

¹⁰In the five years immediately preceding the commencement of the war, France paid pensions and gratuities to the number of persons mentioned in the following table:

Invalidity pensions	460
Long service pensions	6,885
Gratuities on discharge	484
To widows and orphans	1,040
Assistance	50,000

It is estimated that already there are from 120 to 150 times more pensions to be dealt with than there were before the war; there are already about 1,800,000 pensions, for soldiers, sailors, and their dependents. The office which at present gives assistance to discharged men and their dependents, who are not entitled to pensions, expects to open, during the coming year, about 600,000 files and to pay out about 58,000,000 francs; in the following year it expects to be called upon to do about half as much.

The importance of dealing promptly and properly with the pensions question is insisted upon. There will be no village in France without its pensioners. The laws concerning the administration of pensions will be among the most important and the most discussed of the country's statutes.

The *Direction des Pensions et Secours* will form one of the main parts of the proposed organization; a 'Record Office' will form the other. There are several operations, at present looked after by different departments, which should be combined in a single organization. These are operations connected with the succession (wills and heirs) of soldiers, with the supply of information concerning soldiers, and with the keeping of their records. At present, about 1,024 secretaries are employed in looking after soldiers' successions; 1,150 are engaged in supplying information concerning soldiers (this department has about 3,000,000 names on its files); the accurate keeping of soldiers' records is most important, at present about 3,000 clerks are engaged in maintaining them. It is suggested that the Succession Office, the Information Bureau, and the Record Office should all be combined in a single organization.

The new Record Office would constitute a central depot where there would be filed, once for all, birth, marriage, and death certificates, and all information of any description bearing upon the service or status of the soldier concerned. Such a Record Office would form the center of the organization devised for the liquidation of the war. It would employ a very considerable number of clerks now and until a few months after the war; then their number would diminish rapidly, and—if the war is liquidated

successfully—in a year their numbers would be counted by tens instead of by hundreds. In Canada, the pensioning body, the Board of Pension Commissioners, should have the ultimate custody of personal service documents of discharged soldiers and sailors, just as in England the Commissioners of Chelsea Hospital—the British pension body—had charge of those for the disabled and pensioned British soldiers.

If a central Record Office is established, existing procedure will be greatly simplified. For example, at the present time, on the death of a soldier it is necessary for his family to come in contact with no less than five different departments; this situation involves an unfortunate and an entirely unnecessary duplication of documents. If a central Record Office is established it will maintain a complete set of papers for each soldier and will give, to any department requiring it, complete information concerning any aspect of the individual for whom it is desired.

Not the least of the many advantages which the central Record Office would give would be a means of securing coordination between the Ministry of War, from which all pensions are now paid, with works of private benevolence. By making easy reference to its records, the central office would make it difficult for unworthy individuals to receive assistance, to which they have no right, from public or private sources.

Connected with the Pension and Record Offices would be a Director's Office (*Cabinet du Directeur*); the duty of this office would be to consider the higher questions of administration. It would follow the proposals for change in the pensions laws and other legislation affecting the interests of disabled men, which are certain to appear from time to time; it would also concern itself with financial questions. The Government is confronted now with the necessity of finding funds to pay the many hundreds of millions of francs worth of pensions already past due; the capitalized value of these pensions, alone, represents many thousands of millions of francs.

The Director's Office would take steps to make it certain that the pensions laws were properly administered and well understood by all, so as to make it difficult for scamps to attempt sharp practice in connection with them.

By the Director's Office, also, a close understanding and an active cooperation would be insured between the Government and many of the works of private benevolence which already, and in the future, will wish to provide assistance for disabled men and their dependents who may require it.

Lastly, since the duties of the organization proposed for the liquidation of the war are so great and so important, it should be given powers commensurate with its responsibilities.

Legislation containing an estimate of the personnel and material which the establishment of such an organization would require is already before the legislative chambers. The opinion of both the Senate and the Parliament seems to be favorable to it. The need for a central administrative body, empowered to control all matters connected with the return of soldiers and sailors to civilian life, is very generally appreciated, and the establishment of such a body is desired; whether the *Office National des Réformés et Mutuels de la Guerre* (Appendix A-13) with its departmental and local committees (Appendix G-72) will succeed in performing the functions designed for it remains to be seen. It will probably do so (Appendix E-29), although certain misunderstandings may, at first, impede its organization and operation.

Whatever the central administrative body in Paris may be, the carrying out of the measures adopted for the liquidation of the war will remain with executive bodies situated in the departments (the departmental and local committees mentioned above).

An example of the way in which it may be of advantage to secure the continued existence of centers of re-education, or of other bodies connected with the return of soldiers to civilian life, after the disappearance of the immediate need which created them is furnished by the school at Lyons. Many men are being trained there in the manufacture of toys. It is hoped that a part of the important trade in toys, formerly held by Germany, will remain with France at the end of the war. To be successful, the toy industry must be supplied with a constant succession of good designs. Its workers, who may often work at home—a great advantage to disabled men—

must be connected with some central body, from which they receive their designs, which markets the goods produced, and which performs those operations connected with the manufacture of toys which are best—most economically—performed by machines. It is intended, at the expiration of the war, that the Lyons school shall persist and provide such a central organization for the men which it has trained.

The desirability of providing re-education at the expense of the Government, for discharged, but sound men, who may desire it, has been discussed. It is probable that no move will be made in that direction beyond, perhaps, to facilitate for them entrance to the technical, commercial and agricultural schools now maintained by the Government.

XIV. TUBERCULOSIS IN THE ARMY

From the military point of view, a man is unfit for service so soon as he has been discovered to be tubercular. Since it is held, as a rule, that their condition cannot be proved to have been caused or aggravated by their service, tubercular soldiers are usually discharged without a pension (Réformés No. 2). This attitude is consonant with the ruling that the failure of the medical examination to detect disease in a man at his admission to the army is no proof of the non-existence of disease in him; the circumstances under which the medical examination is made and its usual nature easily permit it to be fallacious.

The administration wishes the laws to be liberally interpreted; but it holds that the State can be held liable for disease appearing in a man during military service only in the measure to which the disease can be shown to be due to that service. The precise period at which tuberculosis has been contracted can rarely be proven.

Considerable numbers of soldiers have been discharged as unfit for service because of tuberculosis; in order to care for them and to prevent them from becoming centers of infection on their return to their homes, the Minister of the Interior (Appendix E-6) has secured the establishment of sanitary stations (Appendix G-12, G-13). At present, thirteen stations have been established and twelve more are about to be opened; altogether they will have a capacity of about

2,000 beds. No patient will remain in a sanitary station for more than three months; many will stay for a shorter period. Consequently, it is expected that these twenty-five stations will be able to care for about 10,000 patients yearly. Cases of tuberculosis will not be admitted to 'centers of re-education'.

The object of the sanitary stations is not to treat tuberculosis, but to teach tubercular soldiers the way in which they should live so that they may not be a center of infection to those surrounding them. Far-advanced cases of tuberculosis will not be admitted to the sanitary stations; they will be cared for in existing institutions established for treating such cases. It is expected that a stay of not more than three months in a station will be sufficient to give a sound acquaintance with the precautions which a tubercular subject should take; but it is obvious that the instruction given in so short a time will not secure the sustained observance of the principles taught. For that reason, a *Comité Départemental d'Assistance aux Militaires Tuberculeux* will be organized in each department. It will be the function of this committee to do 'dispensary' work. It will visit the men, see how they live, and make certain that they have the means as well as the knowledge and wish, to live as they should.

As a rule, each station will be attached to an existing institution, such as a hospital; in this way its proper administration will be insured. The medical staff for the sanitary station will be selected locally. The nursing staff and personnel will be provided, largely, by *L'Union des Infirmières Visiteuses*. All the nurses and personnel serving at the stations will receive special instruction in their work at a chest hospital and at a sanatorium.

The 'dispensary' work, which must be done by the departmental committee in following up the men—to see that they live rightly—after they leave the sanitary stations, is most important. Especially competent men and women, *Moniteurs d'Hygiène*, must be entrusted with it.

It has been said that many of the soldiers discharged from the army for tuberculosis will not be pensionable. Consequently, the duty of caring for them devolves upon the civil and not

upon the military power. A soldier, discharged for tuberculosis, will be sent to a sanitary station by the military authority; if he has already been discharged from the army when his disease is discovered, he will be sent to a station by civilian authority.

From the nature of their functions most of the sanitary stations will disappear soon after the termination of the war. The expense of maintaining them is borne entirely by the State.

The organization and maintenance of the committee established in each department to follow up the cases after they leave the sanitary stations will be cared for by associations created for that purpose in each department, and dependent for their funds and personnel upon volunteers. Each departmental committee will organize subordinate committees in towns and villages.

A *Comité Central de Préservation Antituberculeuse et d'Assistance aux Tuberculeux* will probably be established in Paris in order to provide a coordinating center charged with the general considerations of the whole question. One advantage expected to result from this method of organization is that the machinery ordinarily used in combating tuberculosis among civilians will be stimulated and greatly strengthened.

The organization, briefly described in this section, is largely the work of M. Brissac, *Directeur de l'Assistance et de l'Hygiène Publique*, with the Minister of the Interior (Appendix E-6). A description of the work done by his department during the war has been published (Appendix G-11); it is, in part, what a department of public health might be.

XV. GERMAN METHODS

It is stated that Germany has forbidden all publications concerning prosthesis and functional and professional re-education. By private correspondence, however, something is known in France of what is being done for disabled men in Austria and Germany.

Centers of re-education have been established; for example, the *Verwundetenschule* at Düsseldorf, and a center of re-education at Vienna; the latter is said to accommodate 4,000 patients.

Orders have been given that mechanotherapy, as a rule, is to be discontinued, and that men are

to be put to work as soon as possible. What little mechanotherapy is practised is being done with Zander's machines. Work is prescribed, instead of mechanotherapy, on the principle that properly selected work constitutes the best possible means of functionally re-educating an injured body and of maintaining a proper mental attitude and willingness to be self-supporting in an injured man. Consequently, the nature of the work done by him is carefully selected for each individual by special medical men who consider both the aptitude of the individual and the nature of his injury.

Temporary artificial limbs, of even primitive types, are supplied as early as possible in order to habituate patients and stumps to their use. Full advantage is being taken of even the shortest stumps in the designing and fitting of artificial limbs; some of the arms supplied in Germany are fitted with a pair of jaws very much resembling those which form a part of Professor Amar's arm for heavy work (Appendix G-1, G-1a). In Austria, an artificial arm made of metal has been devised which much resembles Amar's arm for light work (Appendix G-1, G-1a). Limbs of standardized patterns are supplied in order to facilitate their repair or replacement.

Functional and professional re-education is obligatory for those requiring it. Disabled men are retained in the army until they have received their artificial appliances and until their re-education is complete. Only then are they discharged if it is obvious that they can no longer give service of military value; if they can do so, they are retained in the army and given work suited to their abilities. So it is that disabled men are very largely employed in munition factories where they work under the superintendence of overseers who are themselves disabled.

XVI. THE FRENCH NURSING SYSTEM

Before 1903 nine-tenths of the nursing in France was done by nuns. When the religious congregations were broken up by the government, it became necessary to create a body to do the work formerly done by them. The school established for that purpose at the Salpêtrière Hospital has produced a good many nurses—

some of them are said not to be quite of the type that nurses should be. Other training schools for professional nurses have been established; one is directed by Mlle. Chaptal, and another is maintained by one of the Red Cross Societies (Appendix D-62a).

The proportionate number of highly-trained professional nurses in France is less than in Canada, but the number of women who have received some training in nursing is very much greater. This is due to the organized system of dispensary training by which the women of France are, in theory, at least, trained for hospital service in case of war, just as the men, by their military training, are prepared for service in the army. The plan by which the *Secours aux Blessés Militaires* (Appendix G-56) trains women seems well-advised.

The conditions under which it is permitted to train women for the certificates granted by the society are strictly laid down; there are, at present, about sixty schools where training is carried on. Those who wish to be trained must promise, in the event of war, to serve in the society's hospitals. The society grants two diplomas: the first gives the title of *Infirmière*, the second that of *Infirmière-Surveillante*. The first diploma is given to those who have satisfactorily undergone a training during four consecutive months; the second diploma can only be obtained after two years' training done subsequently to the gaining of the first one.

The training comprises a considerable acquaintance with practical work, obtained by constant attendance at a hospital, and a fair amount of theoretical instruction. The diplomas are granted after comprehensive examination.

The peculiarity and chief advantage of the society's system is that training in nursing may be had by women who are living at their homes; they obtain their practical knowledge by attending hospitals during their free time. There are about 12,000 women, holding this society's diplomas, now at work in French hospitals; in addition to them about 10,000 women, members of the society, are employed in the hospitals as assistants.

The French War Office has recently created a corps of temporary military nurses (Appendix

G-57). They must be strong, healthy women of good character, and with sufficient knowledge to be useful as nurses.

XVII. SUMMARY

Definite principles have governed the creation and design of measures adopted by France in caring for her discharged soldiers and sailors.

France, with her whole strength, is fighting a national war; for that reason, the detriments incurred by Frenchmen are to be distributed, as equally as possible, among the citizens who compose France. This report considers only the rehabilitation of men who have suffered a personal detriment; discussion of the equalization of economic detriment is avoided.¹¹

To secure the equitable return to civilian life of ex-soldiers and ex-sailors who have suffered physical or mental detriment, as a result of their service, is a work of large dimensions. Like every other large undertaking, it can be accomplished best under the administrative control of a single central directing body, by numerous executive agencies, each closely connected with the field of its operations. The need for a central administrative body has been recognized, and partly met (Appendix A-14; Appendix G-54); it is probable that it will be completely met.

In the organization of the executive agencies (Appendix G-72) it is to be remembered that the rehabilitation of disabled men is, in great part, a temporary operation, and that permanent machinery should not be created for effecting it unless a permanent use for that machinery exists; therefore, existing institutions and public services are employed when ever possible in executing the various operations by which disabled men are cared for.

While it has been, and will be, necessary to profit by the operation of important works of private benevolence, laws are about to be made which will prevent the initiation of unsound

¹¹ The Resolutions adopted by the first Inter-Allied Conference (Appendix I) on professional re-education of disabled soldiers on May 11, 1917, laid stress on all of the points mentioned in this Report. Little that is absolutely new resulted from the conference, with the probable exception of recommendations that special hospitals for insane and neurotic soldiers should be established, such as that now existing at Oudes (Appendix G-78).

measures by irresponsible organizations dependent for funds upon private subscriptions. Private benevolence, indeed, should find no place in providing the advantages which disabled men should receive as a right from their fellow-citizens.

The interest of the men has been the first consideration in the designing of the methods adopted for returning discharged soldiers and sailors to civilian life; all measures have been designed with the object of returning the men in the best and quickest manner to an independent position in civilian life. Any delay in doing so, dependent upon administrative difficulties, *e. g.*, preparation of discharge or other documents—is rightly held to be inadmissible.

The procedure by which the rehabilitation of disabled men is effected may be divided conveniently into five stages:

1. Active medical and surgical treatment.
2. Functional re-education.
3. The provision of artificial appliances.
4. Professional re-education (Vocational Training).
5. Establishment in civilian life.

Although this division is made, it is, in a sense, an artificial one; since treatment, functional and professional re-education, and the provision of artificial appliances are complementary processes. They should all be carried out as early as possible in the progress of a patient; they will often be performed simultaneously. Consequently, they can best be carried out either in a single institution, or in special institutions closely allied in space and organization.

Such an institution, or group of institutions, is called a 'center of re-education'. Many centers have been established in France; those at Saint-Maurice (Appendix A-10) and at Bordeaux (Appendix A-3) have been organized as models. The importance of securing a proper, detailed organization in these institutions, from the commencement, is great.

The responsibility for controlling the treatment received by a soldier or sailor rests with the medical service of the army or the navy, until the soldier or sailor concerned is discharged. At present, the general rule is that soldiers and sailors are not discharged from their respective services until their functional re-education is

complete, and until they have received any artificial appliances which they may require; it seems possible that, in the future, regulations will make it necessary for men requiring it to accept not only medical and surgical treatment but also professional re-education.¹²

The responsibility of recommending the discharge of a man as medically unfit for service rests with carefully-instructed, competent, and perfectly equipped boards composed of medical officers belonging to and appointed by the French Army Medical Service. These boards have also the responsibility, both of deciding whether a disability results from service—and is therefore pensionable—and of deciding the degree of incapacity resulting from a pensionable disability. The pension awarded in respect of a disability varies directly with the degree of incapacity resulting from it.

It has been accepted as a principle, first, that each man requiring an artificial appliance is to receive the appliance, of the best possible type, best suited to his needs; and, secondly, that artificial appliances supplied by the government are to be maintained in repair and replaced, when necessary, by the government.

An Orthopedic Commission (Appendix A-15) has been appointed for the purpose of establishing the types of artificial appliances to be provided by the government. It is possible that the maintenance of appliances will be provided for by paying an annual sum for their repair to those using them.¹³

The choice of a future occupation for a disabled man is a matter of the greatest importance. It can be made, rightly, only by those who have a special competence in such matters, who are accustomed to estimate a man's aptitudes, and

¹² From a Report made by Sir Henry Norman (Appendix G-86) it is apparent that soldiers are being uniformly retained in the Service until everything that treatment and functional re-education can do for them has been done. The main reason for strict adherence to this principle is probably the desire to retain in Military Service all men who are capable of being employed advantageously; a consequence of the practice is to make the acceptance of treatment and training more nearly obligatory than it was before.

¹³ The Inter-Allied Conference (Appendix G-78) recommended that an International Committee should be appointed for the purpose of considering and making recommendations concerning orthopedic and other appliances designed for the assistance of disabled soldiers.

have a knowledge of existing or probable opportunities for occupation.

It has been accepted as a principle that the economic soundness of measures connected with the establishment of disabled men in civilian life must never be allowed to depend upon any feeling of beneficence toward them. The position of a disabled soldier must be an assured one and dependent in no way upon the goodwill or assistance of others.

It is expected that practically all discharged and disabled ex-soldiers and ex-sailors will be absorbed in the civil population and that it will be almost unnecessary to establish new 'Old Soldiers' Homes'.

The following are important matters connected with the establishment of ex-soldiers and ex-sailors in civilian life:

1. Provision of Pensions.
2. Assistance to Employment.
3. Advancement of Capital.
4. Increased cost of Insurance.
5. Settlement on the Land.
6. Watching the interests of Disabled Men.

The old pension laws, which existed before the commencement of the war, have been found to be inadequate. It is certain that they will be replaced by new laws (Appendix G-49, etc.).

The principles which the laws, finally adopted, will observe are definite. A totally disabled man must receive a pension permitting him to support his family in decency. Only the extent of the incapacity resulting from an injury determines the grade of a pension; neither social rank, nor earning powers, nor any other factor but the extent of the incapacity is considered. In order to assist Medical Officers in estimating the extent of the incapacity resulting from a given disability, a guide—a Disability Table—has been prepared for their use (Appendix G-31); it has been found to be indispensable. A disability is pensionable only in the extent to which it is due to, or aggravated by, military service. While, in theory, a soldier has the right to refuse an operation involving the shedding of blood; in practice, an unreasonable refusal to submit to an operation, which would result in the lessening of a disability, is held to be sufficient reason for the reduction of the pension to the amount which

would be awardable were the existing disability diminished by operation. Pensions granted in respect of a disability are the inalienable property of the grantee. They are paid quarterly and can be drawn upon, in advance, through the Post Offices.

Offices established by the Government will assist disabled men to find employment in every part of France (Appendix A-13, A-14, G-72).

Laws have been framed providing that disabled men, other things being equal, should be given preference over other applicants; for employment in Government Service and in any enterprise enjoying governmental concessions or assistance.

In order to provide for the support of the families of men who, perhaps during a period of from one to two years, are receiving professional re-education, the Government either continues to pay the separation allowance or pays the pension, whichever may be the greater. After re-education has been completed, financial assistance for himself and his family—it is already given by certain societies—will be required by the artisan to establish himself in his business, and by the farmer, who will require seeds, stock, farming implements, and something to live upon, until the return of his first season comes in.

It is recognized that accident insurance and life insurance, as a rule, must cost more for disabled men than for those who are sound.

The principle has been recognized that, when the disability is due to military service, the increased cost of insurance should be borne, up to a certain amount, by the State.

Up to the present, no procedure for relieving disabled men from the increased cost of life insurance has been made. A proposal to pay the increased cost of accident insurance from a fund contributed to by employers and by insurance companies will probably be adopted.

The desirability of settling disabled men on the land has been recognized and various laws have been proposed with the object of making it easy for them to acquire rural property.

Questions affecting discharged, perhaps disabled, soldiers and sailors (*e.g.* matters affecting pensions or land settlement) may become sub-

jects of discussion in the future in the Legislative Chambers. It is proposed that one of the functions of the Central Body, administering matters connected with the return of ex-soldiers and ex-sailors to civilian life, will be to exercise a general watch over ex-soldiers' and ex-sailors' interests.

Definite procedure has been adopted and arrangements made for dealing with cases of tuberculosis, with the blind, the deaf, and others requiring special treatment.

The French Nursing System has been successful in mobilizing many thousands of French women and in employing them usefully in the Military Hospitals.

In France, Government and Publicists alike have recognized the importance of securing a sound perception, in the general public, of the precise conditions in which ex-soldiers and ex-sailors will return to civil life. Many methods have been employed in doing so, and there can scarcely be anyone in France capable of listening or of reading who has not had an opportunity of becoming acquainted with the foundations of the measures described in this Report.

XVIII. MEASURES WHICH MIGHT BE ADOPTED BY CANADA

The measures appropriate to Canada, in caring for her returned soldiers and sailors, become evident if the principles which govern their creation and design are clearly established.

Canada is fighting a national war; for that reason, the detriments resulting to Canadians must be distributed as equally as possible among the citizens who compose Canada. This report considers only the rehabilitation of men who have suffered personal detriment; discussion of the equalization of economic detriment is avoided.

To secure the equitable return to civilian life of Canadian ex-soldiers and ex-sailors who have suffered physical or mental detriment as a result of their service is a work of large dimensions. Like every other large undertaking it is advisable that it be accomplished, under the administrative control of a central directing body, by numerous local executive agencies, connected

closely with the field of their operations¹⁴ (Appendix G-72).

In the organization of the local executive agencies it is to be remembered that the rehabilitation of disabled men is, in great part, a temporary operation and permanent machinery should not be created for effecting it unless a permanent use for that machinery exists; therefore, existing institutions, such as the Post Office, and other public services, are to be employed, whenever possible, in executing the various operations by which disabled men will be cared for.

While it will probably be necessary to profit by the operation of certain important works of private benevolence, measures should be taken to prevent the initiation of unsound measures by irresponsible organizations depending for funds upon public subscriptions. Private benevolence should find no place in providing for the advantages which disabled men should receive as a right from their fellow-citizens.

This section does nothing more than attempt to name the operations by which the equitable re-establishment of disabled men in civilian life may be effected. Certain suggestions as to the methods by which the execution of those operations may be secured are contained in preceding sections and in a report made by the Pensions and Claims Board of the C. E. F. (Appendix F-36).

1. *Central Administrative Body*

A central administrative body should be established with full power to control all matters connected with the return of ex-soldiers and ex-sailors to civilian life.

The need for such a body has been recognized in France; already, that need has been partly met (Appendix A-14; G-54) and it is probable that it will be completely met. In Canada, such a body does not exist, some of the functions which should be exercised by such a body are performed by the Military Hospitals Commission (Appendix H), others by the Medical Service, and still others by the proposed Pension

¹⁴Such a centralization of direction of matters connected with the return of members of the forces to civilian life is rapidly being accomplished under the Ministry of Pensions.

Commissioners. (The Board of Pension Commissioners was formed with exclusive jurisdiction over the administration of Canadian war pensions in September, 1916.)

2. *Stages of Rehabilitation*

The equitable rehabilitation of disabled ex-soldiers and ex-sailors falls into five stages:

1. Active medical and surgical treatment.
2. Functional re-education.
3. The provision of artificial appliances.
4. Professional re-education.
5. Establishment in civilian life.

3. *Active Medical and Surgical Treatment*

The Canadian Army Medical Service, already responsible for establishing the physical condition of a man at his entrance to and exit from the Canadian Expeditionary Force, should bear the whole responsibility of controlling,—not necessarily of giving—*all medical treatment (active or re-educational) received by men until they are discharged from the Canadian Militia (or Navy) or are granted permanent pensions*; no man should be discharged until his treatment and functional re-education has been completed and until he has received any artificial appliance required. The Canadian Army Medical Service should also be responsible for controlling both the treatment and the re-examination of men who are receiving renewable pensions.

In order to enable the Canadian Army Medical Service to meet these responsibilities, it will be necessary to supplement its present organization.

4. *Physical Rehabilitation*

Treatment, functional and professional re-education, and the provision of artificial appliances are complementary processes; they should all be carried out as early as possible in the progress of a patient; they will often be performed simultaneously. Consequently, they can best be carried out either in a single institution or in special institutions closely allied in space and organization.

5. *Institutions Required*

Special institutions for performing the functions mentioned in paragraph 4 will be required both in England and in Canada.

The decision as to the policy to be adopted in dealing with this matter depends upon many factors; that outlined below proceeds from the assumption that Canada is engaged, to a finish, in a national war. If that assumption be correct and if the war continues for but a few months longer, military service must become compulsory in Canada, in practice, as it already is, in theory, by the provisions of the Militia Act. In that event all the difficulties which are supposed to be dependent upon the voluntary system will disappear.

It is clear (see section on Professional Re-education, page 11) that for their own sake alone, quite apart from economic and administrative considerations, all men who can never again be fit for military service should be returned to Canada so soon as the journey can be made without detriment to their condition. Men who can be made fit for service should not be discharged but should receive appropriate treatment. An institution capable of caring for both classes of men should exist in England. It will often be that not until after several weeks, or even months, of hospital treatment, a man will be ready either to resume service or to be sent to Canada; functional and professional re-education should proceed during that period. Facilities must be supplied in England both for giving that treatment and for caring for disabled Canadian soldiers who elect to take up their domicile in Great Britain.

Until satisfactory arrangements have been provided, and are ready for operation, in Canada, the present method of handling disabled men at Granville Hospital and Roehampton may well persist.

An institution performing similar functions, though larger and much more complete in its organization, should be established in the neighborhood of Toronto.

Toronto is named because it is desirable that a center of re-education should be placed near a large city (see page 53). A city in Ontario is mentioned because greater numbers have been recruited in Ontario than in any other province; and it is desirable, as far as possible, that men undergoing re-education should be near their families and the locality in which they will probably find employment.

The Toronto institution should be a model one at which instructors might be trained for the

'Centers of Re-education' to be established in other provinces if, and when, they are required.

It is probable that 'Centers of Re-education' will be required in several Canadian provinces. It is difficult to make any estimate of the number of men for whom provision must be made. Any estimate is entirely dependent upon the nature of the fighting and is, therefore, easily invalidated.

The nature, number, and the size of the institutions actually necessary will depend entirely upon the nature and number of the casualties. Consequently the necessity for close coordination between the Director of Medical Service and whatever body in Canada control these measures adopted for the care of returned soldiers is very great; from his knowledge of the nature of the casualties admitted to hospital he is able to state—two or three months beforehand—approximately, the number and nature of the cases for whom accommodation in centers of re-education will be required.

After twenty months of war the French estimate that professional re-education is required for about four-tenths per cent. of wounded men.

Not long ago, Ontario had enlisted about 100,000 men, the western provinces about the same number, Quebec 24,000, and the maritime provinces about 22,000.

If Canada recruits 500,000 men not only will these figures be increased but their relative proportions will be altered. Consequently, while the first center of re-education might be established in Ontario, it will later become necessary to establish others elsewhere.

The existence of two languages and the diversity of occupations in the various provinces makes the establishment of provincial centers desirable.

The nature of the instruction given in each center will vary considerably according to the needs of the province in which it is situated. Assistance in planning the instruction offered by centers of re-education should be obtained from large employers of labor, and from existing technical schools.

In France, in anticipation of a greatly increased use of machinery in agriculture, much attention is being paid to the training of agricultural mechanics.

If posts in the Canadian Civil Service are to be reserved for disabled men schools for training them must be established. In the province of Quebec, especially, where the percentage of illiterates is high (Census of 1911, twelve and sixty-six hundredths per cent.), it will be necessary to pay a good deal of attention to primary education.

The number of centers of education which it will be necessary to establish in Canada possibly will not be, proportionately, so great as in France, because many

Canadian soldiers will return either to their previous occupation or to one connected with it; again, desirable though it might be, it will scarcely be possible—unless public opinion changes—to make professional re-education compulsory for those Canadians requiring it.

It might be advisable to arrange for the persistence of one or more centers of re-education as schools for the professional readaptation of working men disabled in peace time.

Although it is not necessary, it has been found desirable that the Director of a center of re-education should be a medical man who has special knowledge of the work carried out at the institution under his control.

6. *Character of Appliances*

Artificial appliances must be of the best possible type and be maintained in repair by the Government.

In order to forestall possible popular criticism an Orthopedic Commission, as in France (Appendix A-15), might be formed for the purpose of fixing the types of artificial appliances to be provided by the Government; in every case the policy would be to adopt the appliances best suited to the needs of the individual receiving them.

The arrangements made for the manufacture and distribution of artificial limbs will depend upon the number required; the French estimate that one per cent. of their wounded require artificial appliances. Eventually, each man will have two appliances so that, in case of accident, he will never be without one.

It is probable that the French Government will provide for the maintenance of artificial appliances by paying an annual sum for their repair to those using them.

7. *Establishment in Civilian Life*

Under this convenient heading are grouped the following operations:

1. Provision of pensions.
2. Assistance to employment.
3. Advancement of capital.
4. Increased cost of insurance.
5. Settlement on the land.
6. Watching the interests of disabled men.

8. *Pensions*

The pension question has been discussed in the report of the Pensions and Claims Board (Appendix F-36; page 61); it is quite certain

that new pension laws, and procedure, and machinery for securing their operation are urgently required.

The question has been considered by a Parliamentary Committee appointed on March 13 [Hansard; March 14, 1916, page 1, 777]. Its report has been presented to Parliament and adopted [Hansard; May 18, 1916].

Adequate penalties should be provided for infractions of whatever laws may be adopted.

The foundation, upon which the amount of the pension awarded should be based, is that a totally-disabled man should receive a pension permitting him to keep his family in decent comfort; it is held that the income of an average healthy laborer constitutes an amount sufficient to support him and his family in decent comfort.

The amount of the pension paid in respect of any individual varies directly with the extent of the incapacity for labor, in the general labor market, resulting from his disability.

In order to assist medical officers in estimating the extent of the incapacity resulting from a given disability, a disability table should be prepared; a copy of a short disability table (Appendix F-37; page 73) is attached at the end of this report. The use of such a disability table has been found to be essential in France (Appendix G-31).

In estimating the amount of a pension, no account is taken of the soldier's former occupation, social rank, or earning capacity; the degree of incapacity for general labor resulting from the disability is alone considered. A disability is pensionable only in the extent to which it is due to, or aggravated by, military service. It will, therefore, often be necessary to establish the origin of a disability by the evidence of those who were present when it was originated.

It would be proper (this statement is not argued here), in case of unreasonable refusal to undergo treatment, or re-education—which would result in a diminution of incapacity—were the amount of pension awardable to be correspondingly reduced.

Any pension granted in respect of a disability becomes the inalienable property of the grantee.

In order to prevent fraud, the finger prints of all soldiers and sailors receiving pensions should

be taken; it would be preferable were the finger prints of all men taken at their discharge.

9. *Assistance to Employment*

Occupations taught in centers of re-education must be chosen in accordance with Canadian conditions.

In Canada, manufacturing operations are standardized in big factories and machines are used as much as possible; in France, there are many small employers and handwork is much more commonly used.

It is probable, although the desirability of possessing a trade is evident, that many of the disabled Canadians will become clerks of various sorts—insurance agents, commercial travelers, checkers, overseers, time-keepers, etc.

Attempts to introduce special occupations, such as toy-making, for disabled men must be viewed with the greatest caution.

The economic soundness of any measure connected with the re-establishment of disabled men in civilian life must never be allowed to depend upon any beneficent feeling for them.

10. *Preference in Appointment*

Disabled men, other things being equal, should be given the preference over other applicants for all government appointments.¹⁵

France goes further and all companies enjoying public concessions will employ a certain percentage of disabled men; of course, it is not intended that men should receive public appointments which they are not competent to fulfill. It is estimated in France that about two-tenths per cent. of the wounded will receive Government appointments.

11. *Placement Facilities*

There should be established a system of co-ordinated employment bureaus covering the whole of Canada.

Existing public employment, or industrial, bureaus—Dominion, Provincial or Municipal—hitherto have not had a very wide usefulness in Canada. If a competent organization were provided, to find employment for those—disabled and sound—requiring it at the end of the war, it might usefully become a permanent institution.

¹⁵ On October 12, 1916, Order-in-Council, P. C., 2170 was passed, providing that in making appointments to the Civil Service preference should be given to returned soldiers.

To be of real value, any employment bureaus established must have the power of advancing the transportation of men who are travelling to appointments. An industrial survey is being made with the object of ascertaining the variety of occupations and number of positions which might be expected to be open to returning disabled soldiers; the survey specifically inquires the opportunity for employment open to men suffering from specific disabilities, such as the loss of an arm, leg, or eye.

12. *Advance of Capital*

Financial assistance should be *given* to men in order to support them, and their families, both while they are being re-educated, and until they are established in their occupations.

During professional re-education the separation allowance already granted might well be continued (See Appendix H). After re-education is completed the artisan will require tools, raw material, and something to live upon until his business becomes established; the farmer will require seeds, stock, farming implements, and something to live upon until the return of his first season comes in.

13. *The Increased Cost of Insurance, Resulting from their Disability, to Disabled Men Must be Borne by the State*

Accident and Life Insurance will both cost more to disabled men than to sound men. Since their disability is the cause of that increase, it must be borne, up to a certain amount, by the State. The fact that certain Canadian communities have arranged for life disability insurance for soldiers should be considered in this connection. Full particulars concerning the communities which have provided insurance and the precise terms of that insurance should be obtained. It is possible that the information may be on file in the office of the Chief Paymaster. It is certain that insurance has been provided by Toronto, Hamilton, Wentworth County, Oshawa Woodstock, Oxford County.

14. *Settlement on the Land*

Both France and England have proposed schemes by which disabled men are to be encouraged, and assisted, to become agriculturists.

A proposal to form 'Returned Veterans Colonies', in Canada, has been made by the Canadian Pacific Railway Company.

Canada must be prepared for the immigration of considerable numbers of men discharged from the Imperial troops. South Africa, New Zealand, and Australia have already commenced arrangements for receiving them; the Provincial Committee of the Military Hospitals Commission in British Columbia has suggested legislation to the same end. The Federal and Provincial Governments have devised generously assisted schemes for facilitating the settlement of returning soldiers and sailors upon the land (Appendix G-87a, G-87b, G-87c).

15. *Attitude of the Public*

In Canada, public opinion must arrive at a proper understanding of the conditions surrounding the return of ex-soldiers and ex-sailors to civilian life.

It is of the gravest importance that sound ideas concerning the situation created by the war should be general. If public opinion is sound there will be, to mention one advantage among many, no serious tendency among disabled men to remain entirely dependent upon their pensions.

In ensuring the spread of sound ideas every means of publicity—press, pulpit, posters, and picture-palaces—should be used with all possible enthusiasm and pertinacity. France has done and is doing so with admirable results.

The Inter-Allied Conference (Appendix G-78) advised that an International Body should be created for the dissemination of information concerning matters in any way affecting disabled soldiers. It was recommended that the body formed should issue a Journal.

16. *Protecting Interests of the Men*

The interests of disabled men must be watched consistently by some body entrusted with that duty.¹⁶

To do so might be a function of the Military Hospital Commission, or of the 'Ex-Soldiers and Ex-Sailors' Trustees'. There will be many questions, concerning ex-soldiers, in which the consideration of such a body

¹⁶ At the Inter-Allied Conference (Appendix G-78) there was made a recommendation that bodies entrusted with watching over the interests of disabled men in all countries should cooperate in order to secure the welfare of disabled men of one nationality who, later, go to live in allied countries.

will be of great advantage; *e. g.*, pensions legislation, provision of employment, etc.

This section is not, strictly speaking, a part of the report. It is an attempt to indicate directly, some of the more obvious respects in which French experience

points to methods of action which might be found apt in meeting Canadian requirements.

A large part of Section XVIII is a repetition of Section XVII. There are, however, divergences and many instances in which additional matter has been added.

Appendices

APPENDIX A

Description and List of Centers of Re-education Visited and of Other Bodies, Dependent upon the Government and Exercising Functions Connected with Returned Soldiers, also Visited.

1. Les Amis Des Soldats Aveugles, Maire du XII^e Arrondissement, 130, Avenue Daumesnil, Paris.

The object of this society is to help soldiers blinded by the war. It assists them in learning a trade, in working at it and helps them to form a home.

It maintains a *Maison de Convalescence*, 99 bis, rue de Reuilly, Paris, which is an annex of the famous Parisian Hospital for the blind, *L'Hospice National des Quinze-Vingts*. This institution is most admirably organized and administered. There the society does everything for its charges that the best experience can suggest; in addition, its careful, personal attention to the condition of those coming under its care continues, after they have left the *Maison de Convalescence*, for as long as they live. The Society depends for its funds upon public subscriptions.

2. Ateliers Departementaux pour les Ouvriers Mutilés, Estropiés ou Infirmes, 64, Rue Arsène Chereau, Montreuil-sous-Bois(Seine), Annex A., 13, Rue Planchat, Paris; Annex B, 91, Rue Campans, Paris.

These workshops were founded in 1899, in order to provide occupation for persons mutilated in civil life. They are maintained by the Department of the Seine for its own use at a cost of 250 francs per year per inmate. They employ about 500 persons of both sexes, who receive daily wages varying from seventy-five centimes to three francs, the average being one franc and a half. The rules of the workshops are generous.

The industries carried on are minor ones, such as mat and brush making, book-binding and locksmithing.

A hopeless lack of ambition among the inmates characterizes these workshops; it should be sufficient to condemn the suggestion that wounded men should be given employment in such institutions, even when established for them alone, so long as they are able to earn their living normally in the workshops of commerce. (Appendix G-19.)

Attached to the report is a statement of the terms of the establishment of these workshops. (Appendix F-8.)

3. École Pratique et Normale de Rééducation Professionnelle des Mutilés et Estropiés de Guerre, 15, Rue Montgolfier, Bordeaux (Gironde).

This school was established, both to teach disabled men occupations, and to train individuals as instructors for the other schools which are to be established for the re-education of ex-soldiers. Another function of the institution is the elaboration, both of new methods of conducting the re-education of disabled men, and of new artificial appliances for their assistance.

The school is attached to the orthopedic center of the district in which it is situated, and its Director is the Officer in charge of the service of prosthesis in that center. The by-laws of the school have been printed; in many ways, especially in the care with which the details of its organization and documentation have been worked out, it might serve as a model. (Appendix F-2-F-7, F-16.)

The school has been in existence for three months. At present it has seventy-eight inmates. This number will shortly be increased to 200 or more. All the pupils are internes; it is strongly held that re-education progresses much more

favorably if men are internes than if they live in their own homes. Their active hospital treatment is finished before their admission.

Certificates of competence are given to all those who graduate from the school; none receive certificates who do not deserve them. A fundamental principle of the school is to teach disabled men only trades which they are capable of performing efficiently. Those who are incapable of becoming self-supporting are dismissed; it is maintained that the right place for them is not a school for professional re-education but a special, appropriate institution.

4. Écoles de Rééducation Professionnelle des Invalides de la Guerre, École Joffre, 41, Rue Rachais; École Tourvielle, 25, Chemin de Tourvielle, Lyon (Rhône).

These schools were established by a movement commencing in November, 1914. They have, therefore, been in operation longer than any other similar institution in France. They have been most useful. At present there are about 250 men, all told, in the two schools, and there is a long waiting list of about 800 who desire admission. The school at rue Rachais is in the town and teaches, especially, accounting and toy-making. The school at Tourvielle is in the country and gives instruction, more especially, in manual occupations.

It is insisted that no pupil shall leave the school without having a good primary education; since a man without education can rarely become a successful employer and it is hoped many disabled men will become the heads of small businesses. Every effort is made to give men an occupation in which they can earn a living in competition with those who are sound.

The documentation of the school is not so complete as is that of the school at Bordeaux. Here, much more is left to the judgment of the instructor; they are personally responsible for making certain that the men are suitable for the occupations in which they receive instruction. The instruction is thorough and it is anticipated that, according to the occupation taught, pupils will spend from a year to, often, two years in the school.

The cost of maintaining the schools is high; it amounts to about 5.50 francs per day per pupil. One reason for this is that each individual, who is not yet in receipt of his pension, receives one franc daily from the institution; in addition the men are paid according to the value of their work.

These schools are administered by a Committee under the Presidency of the Mayor of Lyons, to whose initiative their establishment is due. They are maintained by funds obtained from private subscription, or from the town of Lyons, and by the usual subsidy from the State, paid through the War Department.

M. Basèque, the Director of the school at Lyons (Appendix A-2) was the Director of the school established for a similar purpose by Belgium, at Charleroi.

5. École de Rééducation Professionnelle des Blessés et Mutilés de la Guerre, Saint-Étienne (Loire).

The school was established in July, 1915. At present it has 115 inmates. It is supported, primarily, by the City. All those admitted to it have completed their functional re-education and have received artificial appliances. In addition to the usual crippled men, this institution cares for a few blind who come from this neighborhood. The school is obviously one intended to meet local needs (Appendix G-55).

6. Grand Palais, Champs-Élysées, Paris.

At present, the Grand Palais contains about 1,500 beds for patients undergoing more or less active treatment, and accommodation for about 2,000 convalescents. It possesses a very complete installation for all sorts of treatment useful in functional re-education. All of those living in the Grand Palais, as well as many out-patients, who require such treatment, receive it there. The department of physio-therapeutics, by a system of cards (Appendix F-18), keeps a careful control of the treatment and progress of patients receiving functional re-education.

7. Hôpital Militaire de la Maison-Blanche, Gouvernement Militaire de Paris, Neuilly-sur-Marne (Seine-et-Oise).

Before the war, the building housing this hospital was an asylum for female lunatics. It is

beautifully situated in the country and can accommodate about 1,500 patients. It was formerly used as a depot to which cases who had suffered amputation were sent. At present, while most of its inmates are of this class, it has a few patients with nervous affections.

It has already handled about 3,000 patients and at present supplies about eighty persons weekly with artificial limbs. The operative treatment and functional re-education of patients are supposed to have been completed before they are sent to this hospital.

Until recently no attempt was made here at professional re-education. At present, a little basket and toy-making is done, and there is a workshop in which wood-working—and the manufacture of artificial limbs—is carried on. Frame buildings are, however, being constructed, and it will not be long before functional re-education, on Professor Amar's system (Appendix A-17), and professional re-education are being thoroughly carried out, simultaneously with the supplying of artificial appliances.

8. Hospice National des Quinze-Vingts, 28, Rue de Charenton, Paris.

This institution was established by Louis IX for the poor blind of Paris. It is unique in that it provides accommodation both for blind persons and for their families. It is a headquarters for the consideration of all problems connected with the blind in France. Theoretically, all soldiers disabled by eye trouble should pass through the hospital forming part of this institution. Although blinded soldiers are treated at the 'Quinze-Vingts', practically nothing is done for their re-education there; that is carried on at an Annex of the institution called 'La Maison de Convalescence', 99 bis, Rue de Reuilly, Paris. This Annex is maintained and directed by a powerful society: 'Les Amis des Soldats Aveugles' (See above).

9. L'Institut Militaire Belge de Rééducation Professionnelle, Port Villez, Vernon (Eure).

This institution is established in a delightful situation. It has been organized with great forethought and attention to detail, and it has been administered with the greatest energy. As a

result, it is a most admirable and successful institution.

It is not, however, strictly speaking, a center of professional re-education, for wounded men. From the beginning, it has had, and still has, 500 engineers working in it. At present it is caring for 709 wounded. The institution, not only teaches occupations but produces much in its workshops for the Belgian Army.

A great part of the success of the institution is due to the fact that its inmates are unable to return to their homes in invaded Belgium, and to the fact that they receive only forty-three centimes a day, plus twenty-five centimes, or so, an hour for their work. Because they cannot return to their homes, men are willing to remain at such wages and the institution, by producing cheaply and by selling at good prices to its own Government, is almost able to maintain itself.

Forty-two different trades are taught at the school. Two of its principles are to secure a good primary education to each of its inmates and, by teaching them good trades for which they have an aptitude, to secure them positions in which they will be able to earn good livings although handicapped by infirmity. For the most part, the occupations taught here are manual; occupations requiring a higher education are taught at another Belgian school established at Mortain.

10. Institut National Professionnel des Invalides de la Guerre, 14, Rue du Val de l'Osne, Saint-Maurice (Seine).

This establishment is under the direction of M. le Dr. Bourrillon. It is housed in the 'Asile National Vacassy'. It can accommodate about 200 inmates; in Dr. Bourrillon's opinion a school for the re-education of disabled soldiers should not be larger. The running cost of the institution is about 5.75 francs per day per inmate. The occupations taught are shoe-making, tin-smithing, automobile construction, tailoring, harness-making, architectural design, simple accounting, typewriting and primary education. Attached to the institute is a plant for the manufacture of artificial limbs.

This institution was opened on the 1st of May, 1915. It is unique among the centers of

re-education in being directly and wholly in charge of the Government. Attached to this report (Appendix F-9) is a prospectus of the school which is distributed among those to whom it may be useful; combined with it is a form of application for admission to the institution; also attached to the Report is a set of post-cards illustrating men at work here (Appendix F-34). A cinematographic film of the work carried on there has been produced by Pathé Frères; it has been ordered for the use of the D. M. S., Canadian Contingents.

Dr. Bourrillon has embodied his opinions concerning the re-education of disabled men in a publication (Appendix G-5).

11. Institution Nationale des Sourds-Muets, 254, Rue Saint-Jacques, Paris.

This institution has been in its present position for 110 years. It exists for the training of the deaf and dumb, especially children, and its work is described fully in publications accompanying this report (Appendix G-24-G-30). It seems to be a most admirably organized and conducted institution. It has room for thirty deafened soldiers.

12. Musée Galliera, 10, Rue Pierre Charron, Paris.

An exhibition of works produced by disabled soldiers was held at this Museum. The Directors of the Museum recognize the great desirability of teaching disabled men occupations which have a permanent value, not likely to disappear with the waning of the present intense sympathy for disabled men.

13. Office National des Mutilés et Réformés de la Guerre, 97, Quai d'Orsay, Paris.

This office was established by the Ministers of Labor, of War, and of the Interior at the commencement of March, 1916. It is directed by a Commission presided over by a representative of the Minister of Labor; its membership comprises two delegates from each of the Ministers concerned. The object of the office is to secure coordination in the activities of the Ministries in all matters connected with the return to civilian life of soldiers and sailors. The constitution, composition, and functions of the office form the

subject of a bill introduced by the Government on April 14, 1916 (Appendix G-54, see also Appendix F-29). (Appendix G-69-70.) It sends out circulars, etc. (Appendix G-71), in connection with its work.

The first annual report of the *Office National des Mutilés et Réformés de la Guerre* (Appendix G-69a) contains a short and complete résumé of the various means adopted by the French Government in providing for its disabled soldiers and sailors. It also contains references to the laws by which various benefits are secured to disabled discharged men. It describes in some detail the organization of the *Office National*; it describes, also, the aims of the body, but it does not appear from the report that it has been possible to completely realize those aims by securing proper coordination among the various bodies executing the function in connection with the return of men to civilian life. From the report it seems that the *Office National* is only able to suggest and recommend in many instances where power to order might have been successful in producing prompter results.

The report gives the history of the establishment of the *Office National*. The *Office National* at present consists of (1) a committee of administration, which is responsible for general questions and especially with the coordinating of the various services occupied with matters connected with disabled and discharged men; (2) a commission of re-education, which advises in technical matters connected with re-education; (3) a council of 'perfection men'; it is especially concerned with watching the interests of discharged and disabled men.

The *Office National* has much to do with the departmental committees on disabled and discharged men which have been created in each of the French provinces; these committees are charged with the execution, in their district, of all matters connected with the care of discharged and disabled men. It is a duty of the *Office National* to determine the principles upon which these committees work.

The *Office National* keeps a register of all discharged men in order that employment may be found for them; it also keeps a register of all employment open to discharged men.

The commission of re-education has advised concerning the manner in which moneys appropriated for the assistance of re-education should be distributed. It is of the opinion that the number of men taking re-education is much smaller than it should be and that means should be taken to insure among disabled men greater appreciation and acceptance of the opportunities offered them.

The *Office National* secures coordination between the Central Occupation Bureau and the departmental committees.

Permanent assistance and guidance is secured for the disabled man by the *Office Central*. It is intended that this office shall watch always over the interests of disabled men.

The three bodies composing the *Office National* have studied many questions affecting disabled men from a general point of view. Among other conclusions to which they have come is that properly chosen and trained visitors should go to the hospitals in order to discuss their future with disabled men and to guide and assist them in the choice of a future occupation. They have also come to the conclusion that it will be necessary to establish workshops for disabled men who will be entirely unable, from the nature of their disability, to secure employment in general commerce.

The first annual report mentions the small number of those who are actually receiving professional re-education and insisting upon the importance of making the advantages of re-education known to disabled men and suggests that competent and well-trained visitors should be sent to the hospitals in order that they may persuade disabled men, at an early stage of their convalescence, of the importance of re-education and in order that they may give advice to disabled men in the choice of a future profession.

14. Office National de Placement des Mutilés et Réformés de la Guerre, 96, Quai d'Orsay, Paris.

This office was established in February, 1916, by the Ministers of War, of the Interior, and of Labor. Its objects are to assist discharged soldiers and sailors to obtain employment and to furnish a means of coordinating the activities

of the various ministries concerned in securing the proper return of soldiers and sailors to civil life.

As at first organized (Appendix F-25), it was intended that branches of this office should be established in each of the French military regions. At present, it is the intention that this office, shall be concerned only with the employment of disabled soldiers and sailors in Paris, and, perhaps, with the placing of disabled men in Government positions. Outside of Paris, existing or proposed Labor Exchanges, under the Minister of Labor, will find employment for disabled men in precisely the same way as they do for those who are sound. Good points in the organization of this office are its documentation (Appendix F-25), and the fact that a Medical Officer is attached to it to provide a constant control over the fitness of the men for the positions for which they offer themselves.

15. La Commission d'Orthopédie de France, Laboratoire du Professeur Amar, Conservatoire des Arts et Métiers, 292, Rue Saint-Martin, Paris.

This Commission has been entrusted with the duty of establishing the designs and specifications of artificial appliances provided by the State for disabled soldiers and sailors.

It consists of M. Jules Amar (Appendix E-1, A-17), President; General Sieur, Vice-President (War Department); Colonel Bouras (Prof. Amar's associate); Colonel Rieffel (Saint-Maurice, Appendix A-10); Capitain Legendre (Maison-Blanche, Appendix A-7); Colonel Pouy (Ministère de la Guerre) (Appendix E-23); Capitaine Plisson (Appendix E-22) (Ministère de la Guerre); M. Griess (Engineer); and Lieutenant Seron.

A meeting of the commission was attended; the care with which every point was discussed was striking.

Plans and specifications of the artificial arms (Appendix F-38) adopted by the commission are attached to this report; copies of the descriptions of other prosthetic appliances, when they have been adopted, will be sent to the D. M. S., Canadian Contingents.

16. Service Cinématographique de l'Armée (Ministère de la Guerre), 3, Rue François 1^{er}, Paris.

This Department was established comparatively recently. It already possesses many films of great value, among them are two illustrating the work done at the École Joffre (Appendix A-4), and another illustrating 'La Maison de Convalescence', of 'Les Amis des Soldats Aveugles' (Appendix A-1). The two films taken at the École Joffre are good. That illustrating 'La Maison de Convalescence' is of little value.

Attached is a list of the films possessed by this Department which are now ready for exhibition. The film illustrating nervous conditions (No. 11) is exceptionally good and should be of great value, both for convincing suitable cases that their affections are curable and for instructional purposes. Also attached is a list of the English titles supplied to Pathé Frères for the English copy of the film, illustrating the École Joffre, ordered from them.

All the films produced by this Department are sold in commerce at a uniform price of eighty centimes per meter. All are of standard size and have the universal perforation. War Office films put on the market by commercial houses have been edited and reduced in length; those supplied by the Department are unaltered originals.

There here follows a list of the medical films produced up to April 15, 1916, by the cinematographic service of the French War Office:

1. AN OPERATION AT THE GRAND PALAIS. (Extraction of a piece of shell from the heart wall by Dr. Laurent). Length, 135 meters.
2. HOW THE WOUNDED ARE CARED FOR. (The Department of physiotherapeutics at the Military Hospital established in the École des Arts et Métiers, Paris.) Length, 270 meters.
3. THE ÉCOLE JOFFRE AT LYONS. (Re-education of men disabled in the War.) Length, 430 meters.
4. CARREL'S METHOD APPLIED AT L'HÔPITAL DU ROND ROYAL, COMPIÈGNE. Length, 86 meters.
5. WITH THE SIXTH ARMY: THE UNDER-SECRETARY OF STATE VISITS THE AMBULANCES.
6. WITH THE SIXTH ARMY: THE MEDICAL SERVICE.
7. A SCHOOL OF RE-EDUCATION FOR BLINDED SOLDIERS, AT REUILLY. [Not good. J. L. T.] Length, 153 meters.
8. PROSTHESIS OF THE JAW AND FACE IN THE SERVICE OF DR. PONT AT LYONS. Length, 152 meters.
9. DIFFERENT FORMS OF LIMPING. Length, 380 meters.
10. THE SANITARY UNITS OF THE THIRTY-SIXTH CORPS. TENTH ARMY.
11. A FEW FUNCTIONAL TROUBLES IN MEN SUFFERING FROM SHOCKS. (Commotionnés.) [Excellent. J. L. T.] Length, 270 meters.
12. AN AMERICAN HOSPITAL TRAIN IS OFFERED TO FRANCE.

The descriptive matter and legends of the film illustrating the École Joffre are in translation as follows:

This is one of the schools established by the French for the benefit of their wounded and disabled soldiers. All those who have been disabled so that they are no longer able to follow their former occupations, go to one of these schools; they remain there at the expense of the Government until they have learned a new trade and have become, in spite of their disability, once more capable of earning a good living.

1. M. Herriot, Mayor of Lyons and a Senator of France, who founded this school.
2. This group of disabled soldiers are taking a commercial course which will enable them to earn good salaries as clerks.
3. With a little practice it is easy for a man who has lost his right hand to learn to write with his left.
4. A wounded man who has lost one hand and all the fingers of the other, except the thumb and the little finger, learns to write perfectly.
5. The same man became a good typewriter. With practice, a one-handed man can typewrite almost as quickly as a man who has two hands.
6. Two disabled men who earned a dollar a day before the war have now positions as clerks at salaries of \$65 a month.
7. On fine days, the shoemakers and tailors do their work out of doors.
8. The shoemakers.
9. The tailors.
10. The bookbinders.
11. There is nothing in bookbinding that these men cannot do well.
12. Disabled men make excellent telegraphic operators. They learn very quickly.

13. The best pupil in the class of wireless telegraphy is a farmer who left school when he was twelve years old.
 14. The Director of the School, and disabled men who are learning market-gardening.
 15. Toy-makers. Before the war, France yearly imported several million dollars worth of toys; most of them were made in Germany. After the war, France means to keep her money at home and make the toys herself.
 16. Good money can be made at toy-making and novelty-making. These occupations give great opportunity to those who have good taste and imagination.
 17. These men were disabled in fighting against Germany; when the war is over they will go on fighting the German toy trade.
 18. One-handed men use machine saws.
 19. A one-handed man at a lathe.
 20. Moulding toys.
 21. Painting.
 22. Making Christmas candy boxes and cardboard novelties for the confectioners.
 23. Some original toys made by these wounded men.
 24. All the men at Joffre school have learned trades different to those which they followed before the war. You have seen that they have learned them well.
- The legends of the film illustrating the physiotherapeutic work are as follows:
1. Drawing illustrating articulated hand. (Amar.)
 2. Method of fitting and control of articulated hand. (Amar.)
 3. Method of fitting and control of articulated hand. (Shows dual control.) (Amar.)
 4. Violin played with articulated hand. (Coat off.) (Amar.)
 5. Violin played with articulated hand. (Coat on.) (Amar.)
 6. Articulated hand, in machine shop. (Amar.)
 7. Articulated hand, in butcher shop. (Amar.)
 8. Articulated hand, at typewriter. (Amar.)
 9. Articulated hand, writing. (Amar.)
 10. Articulated hand, riding. (Amar.)
 11. Articulated hands (both arms lost). (Articulated hands are especially useful in such cases.) (Amar.)
 12. Articulated hands (both arms lost). (Articulated hands are especially useful in such cases.) (Amar.)
 13. Group of three men fitted with articulated hands. (Amar.)
 14. Diagram illustrating artificial arm usually supplied. (Amar.)
 15. Artificial arm with working claw. (Amar.)
 16. Artificial arm, usual type, in carpenter shop. (Amar.)
 17. An artificial arm, usual type, at the forge. (Amar.)
 18. Artificial arm (Amar's claw), using a saw.
 19. Artificial arm (Amar's claw), using a plane.
 20. Artificial arm (Amar's claw), using a rasp.
 21. Artificial arm (Amar's claw), using a file.
 22. Artificial arm (Amar's claw), at a lathe.
 23. Artificial arm (Amar's claw), with a broom.
 24. Artificial arms in a marble factory. (Amar.)
 25. Instrumentation for recording effort of filing. (Amar.)
 26. Record made in analyzing effort of filing. (Amar.)
 27. Instrumentation for observing quantitative and qualitative changes in respiration and fatigue during filing. (Amar.)
 28. Instrumentation for observing quantitative and qualitative changes in respiration and fatigue during filing. (Amar.)
 29. Apparatus for measuring and sampling air respired. (Amar.)
 30. Bicycle, used for functional re-education. (Amar.)
 31. Bicycle, used for passive functional re-education of arm stump. (Amar.)
 32. Bicycle, used for active functional re-education of arm stump. (Amar.)
 33. Bicycle, used for recording fatigue, combined with observation of respiratory changes. (Amar.)
 34. Cardiograph. (Amar.)
 35. Functional re-education by the plane, note the metronome. (Amar.)
 36. Teaching the left hand to do that which the right did, planing. (Amar.)
 37. Platform for studying distribution of forces in walking. (Amar.)
 38. Mercury bulb for functional re-education of hand. (Amar.)
 39. Cheirograph, functional re-education of hand or of isolated digits. (Amar.)
 40. The hammer, teaching a left hand to do the work of the right. (Amar.)
 41. Splint, keeping wrist in extension permits digital flexors to function.
 42. Splint, keeping wrist in extension permits digital flexors to function.
 43. Work-shop for disabled soldiers maintained by Guild of Jewelers.
 44. Jewelry made at the School for Vocational Re-education of disabled men maintained by the Guild of Jewelers.
 45. Apparatus for studying and detecting thero-tactile sensibility.

17. Laboratoire de Prothèse, Service de Santé, Ministère de la Guerre, Laboratoire de M. le Professeur Amar, Conservatoire des Arts et Métiers, 292, Rue Saint-Martin, Paris.

The laboratory for prosthesis attached, under the Minister of War, to the French Army Medical Service is, in reality, the laboratory of Professor Amar (Appendix E-1); Professor Amar is also the President of the 'Commission d'Orthopédie de France' (Appendix A-15).

For the past fifteen years Professor Amar has been interested in human mechanics (Appendix G-56). Before the war broke out he had already a wide knowledge of the nature of the effort required by various occupations and a considerable experience, both in the provision of suitable artificial appliances to disabled men, and in re-education and in readapting disabled men for renewed employment.

Schools employing his methods have already been established for the functional and professional re-education of men disabled in the war: in Italy at Naples, Rome, and Milan; in France at Bordeaux (Appendix A-3), and at Vernon (Appendix A-9). It seems probable that all centers of re-education established in France will be greatly influenced by his teaching.

Professor Amar attaches the greatest importance to the maintenance of a high morale among disabled men, to commencing their re-education and their treatment as early as is possible, and to the choice of an occupation suitable for each man. He is of the opinion that re-education should be under the entire control of the State and that it should be compulsory for all disabled men who would benefit by it.

The first steps in the system of functional and professional re-education codified (Appendix G-1, G-2) by Professor Amar is the scientific examination of the individual concerned and therecording on a special form of the results of that examination (Appendix F-15). Accompanying the form is a series of graphic and written records of the results of the examinations made by Professor Amar's special instruments and methods.

The next step is the prescription of appropriate exercises with one or more of his machines; a intervals, records are taken of the work done.

In this way, a graphic record of the progress, both of the part educated and of general resistance to fatigue is obtained. The various instruments devised by Professor Amar are described, together with the manner of their employment, in his publications (Appendix G-1, G-2).

In using such apparatus as his cycle and cheirograph, it is of the greatest importance that efforts should be timed by a metronome in order to insure rhythmical movements and mental concentration.

The cycle is the machine most often used; it is employed in the re-education of arms and legs, for estimating the 'personal equation' and for recording resistance to fatigue. It consists of an ordinary bicycle firmly fixed to a base; on the rear wheel an accurately adjustable brake is attached. A crank, conveniently placed, is connected by a chain and sprocket with the rear wheel so that it can be turned by hand. The crank handle may be removed and a 'gutter' substituted for it. When it is required to re-educate the stump of an amputated arm, the patient sits beside the machine so that the axis of his shoulder joint coincides with the axis about which the gutter revolves, and movements against the resistance of the machine are made backwards and forwards by the patient. The inertia of the machine, which requires an additional effort at the end of each excursion to check its momentum, is considered to be an advantage.

The file and the plane are used in the re-education of upper extremities. The plane is especially useful in educating a left hand to take the place of a right hand which has been lost. The file is especially useful in detecting malingerers; it is impossible for a malingerer, voluntarily, to regularly reproduce a simulated defect during the five minutes for which a recorded test lasts. The bulb and cheirograph are used for the re-education of the hand and forearm; both have their uses. The cheirograph permits the isolation and re-education of single muscles or of groups of muscles.

Before full usefulness can be obtained from an artificial limb, the sensibilities—tactile, muscular, etc.—must be educated. As soon as a stump has become thoroughly accustomed to its arti-

ficial appliance, the Weir Mitchell phenomenon disappears. Professor Amar has devised instruments and a process of instruction for the education of the stump.

Apart from the original nature of the machines which he employs, the peculiar advantage of Professor Amar's system is that it furnishes incontestable records of the extent of a disability at the commencement of re-education, of the progress of the re-education and of the benefit received from it. It is true that the records may vary from day to day according to the individual's condition; but, in practice, errors from such causes are guarded against. One is careful to make records under normal conditions; and when so taken they are of real value.

Illustrations of Professor Amar's instruments and of their employment accompanied the report made to the Director of Medical Services, Canadian Contingents, by Lieutenant-Colonel Arthur Mignault on *The system of the re-education of the wounded of the war, as it is actually practised in France*.

Professor Amar's instruments are manufactured by the Tainturier firm. The cost of all the instruments, complete, is about one thousand dollars.

The opinion at the schools of Bordeaux and Vernon (Appendix A-3, A-9) the two centers of re-education in France where Professor Amar's system is installed, was that it is a well-conceived plan. Some of his instruments, especially the cycle, were constantly used there. It was felt that some of his other instruments, e.g., the hammer and the apparatus for the analysis of gases, had only limited uses. It was also felt, while a record should be taken at the commencement and end of the re-education of every individual, that it was only in exceptional cases that advantage could be obtained by constantly

taking and preserving records of the patient's work and progress.¹⁷

APPENDIX B

List of Institutions at which the Professional Re-education of Men Disabled in the War is Carried on under the Direction of the Government.

This list is a translation of one issued by the Minister of the Interior towards the end of February, 1916; because additional accommodation will have been required, other schools have doubtless been established since then. The list gives, in tabulated form, the name of the school, the number of places offered by it to disabled men, the body upon which the school is immediately dependent and the nature of the occupations in which instruction is given.

All of the commercial and technical schools are attached to the Department of Commerce; the schools of agriculture are attached to the Department of Agriculture. Noteworthy is the manner in which the schools tend to give special attention to instruction in the main industries of the districts in which they are situated (See Oyonnax, No. 62, and Saint-Étienne, No. 23; Appendix F-11a).

This list contains the names of seventy-two institutions providing places for 3,755 men; it is to be noted that the duration of the instruction provided varies from two or three months to one or two years, according to the nature of the occupation taught. The occupations most sought and most often taught are shoemaking, accounting, and tailoring. It has been suggested that excellent school teachers might be found among disabled men.

¹⁷ Somewhat similar instruments are used in a similar manner at the Grand Palais (Appendix A-6, G-65).

LIST OF CENTERS OF PROFESSIONAL RE-EDUCATION

<i>Name of School</i>	<i>Number of Places</i>	<i>Directed By</i>	<i>Instruction Given In</i>
1. Institut National de Saint-Maurice (Seine)	300	French Government	Shoemaking, rural mechanics, industrial design, tailoring, harnessmaking, joinery, surveying, elementary education, accounting, typewriting, tinsmithing, use of machine tools, etc.
2. Annex to No. 1 for lodging those undergoing apprenticeship; rue Rondelet, Paris	100	French Government	
3. Œuvre de la rue de Reuilly, for the blind; Annex of the Hospice National des Quinze-Vingts, Paris	200	French Government (and by the Society 'Les Amis des soldatsaveugles')	Singing, music, brushmaking, coopering, bootmaking
4. Office departemental des Mutilés, rue et place du Puits de l'Ermite, Paris	200	Department	Shoemaking, tailoring, joinery, varnishing, accounting, stenography, English, general instruction, typefounding, lithography, typography, photography, machinists, bookbinding, industrial design moulders, surveying, factory-checking
5. École Pratique et Normale de Bordeaux	200	City	Joinery, cabinetmaking, woodturning and carving, coopering, wooden shoemaking, manufacture of orthopedic and prosthetic appliances, locksmithing, use of machine tools, coppersmithing, zincworking, basketmaking, bottle mouldering, brushmaking, bookbinding, ceramic arts, harnessmaking, ropemaking, shoemaking, tailoring, metal engraving, lithography, commercial instruction, shorthand, English, Spanish, gardening, cultivation of willows for basketmaking
6. Montpellier	200	Hospitals	Shoemaking, tailoring and joinery, cabinet-making, framing, varnishing, woodturning, industrial design, shorthand, typewriting, commercial instruction, general instruction
7. Bourges	200	Department	Shorthand, typewriting, accounting, chair-bottoming, basket-making, hairdressing, lace and architectural designing, tailoring, shoemaking, joinery, typography and lithography, wood-carving, electricians, spigotmaking
8. Toulouse	40	Department	Shoemaking, basketmaking, wooden shoemaking, accounting
9. Bayonne	200	City	General instruction, accounting, stenography, typewriting, wooden shoemaking, manufacture of chairs, brush-making, toymaking, manufacture of orthopedic appliances, joinery, shoemaking, tailoring, wood-carving, basket-making, photography

LIST OF CENTERS OF PROFESSIONAL RE-EDUCATION (Continued)

<i>Name of School</i>	<i>Number of Places</i>	<i>Directed By</i>	<i>Instruction Given In</i>
10. Pau	50	City	Brushmaking, sandalmaking, iron and woodworking, painting, printing, accounting, shoemaking, tailoring
11. Lyon	220	Mayor of City	Accounting, typing, shorthand, English and Russian, tailoring, shoemaking, joinery, bookbinding, cardboard-boxmaking, wooden shoemaking
12. Limoges	160	Chamber of Commerce	Shorthand, typewriting, accounting, shoemaking, tailoring, electricians, general instruction
13. Tours	100	'Société d'assistance aux convalescents militaires'	Harness-making, shoemaking, basketmaking, chairmaking, tailoring, accounting, shorthand, typewriting, woodturning, use of machine tools, design, commercial clerking
14. Pavillon-sous-Bois (Seine)	100	Department	Basketmaking
15. Duovres-la Delivrande (Calvados)	150	Department	Joinery, iron-working, basketmaking, chair-bottoming, chair-mending, shoemaking, harnessmaking, commercial instruction, carpetmaking, toymaking, designing, hairdressing, massage, cooking, photography, varnishing, brushmaking, cinematograph operating
16. Brest	180	City	Woodturning, joinery, coppersmithing, tinsmithing, fitting, tailoring, shoemaking, saddlemaking, harnessmaking, designing, stenography, typewriting, accounting, clockmaking
17. Lorient	50	City	General instruction, accounting, harnessmaking, granite-cutting, shoemaking, tailoring, bookbinding, cardboard-boxmaking, horticulture, clogmaking, sailmaking, carriage painting, cabinetmaking, wood-carving, clockmaking, jewelry
18. Nevers	100	Department	Accounting, shorthand, typewriting, joinery, cabinetmaking, wood-carving, chair-mending, gilding, upholstering, harnessmaking, shoemaking, tailoring, basketmaking, hairdressing, wooden-shoemaking, turnery, printing, typography, fitting
19. Antibes (Alpes-Maritimes)	25	'Femmes de France'	Shoemaking, tailoring, basketmaking, morocco leather-making, malting, typewriting, horticulture, forestry
20. Orléans	80	Local private initiative	Shoemaking, tailoring, brushmaking, soldering, bookbinding, harnessmaking, manufacture of orthopedic appliances, printing, dyeing, joinery, hairdressing, chairmaking, accounting, manufacture of dental apparatus, furrier
21. Oran. École Victor Vassal	150	'Femmes de France'	Joinery, saddlemaking, shoemaking, tailoring, bookbinding, accounting, manufacture of orthopedic appliances

LIST OF CENTERS OF PROFESSIONAL RE-EDUCATION (Continued)

<i>Name of School</i>	<i>Number of Places</i>	<i>Directed By</i>	<i>Instruction Given In</i>
22. Rouen	150	Chamber of Commerce	Shoemaking, tailoring, clockmaking, tinsmithing, basketmaking, general instruction
23. Saint-Étienne	200	Department	Shoemaking, tailoring, clogmaking, joinery, clockmaking, basketmaking, brushmaking, chair-bottoming, horticulture, accounting, shorthand, typewriting, upholstering, decorating
24. Nimes	44	Local private initiative	Shoemaking, tailoring, joinery, accounting, shorthand, typewriting
25. Macon			Apprenticeships with the manufactures of the district
26. Le Mans		Chamber of Commerce	Apprenticeships
27. Annecy	50	City	Shoemaking, civil service, clerking
28. Saint-Claude (Jura)			Cutting of precious stones, pipemaking
29. Albi		Chamber of Commerce	Apprenticeships, primary instruction, typing, accounting
30. Auch	25	Department	Agriculturists
31. Nancy		Hospitals	In organization

AGRICULTURAL SCHOOLS¹³

<i>Name of School</i>	<i>Number of Places</i>	<i>Instruction Given In</i>
32. École Nationale d'Agriculture de Grignon	15	Shepherds, gardeners, agricultural machinists, farm-laborers, cowherds
33. École Nationale d'Horticulture de Versailles	20	Gardeners, basketmakers
34. École Nationale de laiterie de Poligny (Jura)	10	Cheesemakers, buttermakers, milkmen
35. École Professionnelle de laiterie de Sugères (Charente-Inférieure)	18	Buttermakers, milk-inspectors, accountants, cheesemakers
36. École Nationale de laiterie de Mamirolle (Doubs)	18	Buttermakers, milkmen, cheesemakers

¹³The instruction at many of these schools is given in short courses lasting from for a few weeks to a few months.

AGRICULTURAL SCHOOLS (Continued)

<i>Name of School</i>	<i>Number of Places</i>	<i>Instruction Given In</i>
37. École Pratique d'Agriculture d'Ondes (Haute-Garonne)	8	Agricultural machinists, shepherds, cowherds, farm-laborers, gardeners, vine-growers, coopers
38. École Pratique d'Agriculture de la Reille (Gironde)	10	Cowherds, gardeners, vine-growers, coopers
39. École Pratique d'Agriculture de l'Oisellerie (Charente)	13	Shepherds, gardeners, cowherds, vine-growers, agricultural machinists
40. École Pratique d'Agriculture de la Brosse (Yonne)	12	Shepherds, gardeners, vine-growers, coopers, poultry-farming, agricultural machinists
41. École Pratique d'Agriculture de Fontaines (Saône-et-Loire)	12	Shepherds, gardeners, vine-growers, coopers, poultry-farming, agricultural machinists
42. École Pratique de Grand-Jouan (Loire-Inférieure)	8	Cowherds, farm-laborers, gardeners, basketmakers, agricultural machinists
43. École d'Agriculture d'Aurillac	18	Milkmen, gardeners, basketmakers, cheesemakers, buttermakers
44. Ferme École de Mont-luis	15	Milkmen, gardeners, basketmakers, cheesemakers, butter-makers
45. École Nationale de Rennes	12	Basketmaking, poultry-farming, beekeeping, cidermaking, forestry, agricultural machinists
46. École d'Agriculture de Châtillon-sur-Seine (Côte d'Or)	12	Shepherds, cowherds, farm-laborers
47. Ferme École de la Nourre (Gera)	10	Vine-growers, gardeners, coopers, farm-laborers, cowherds
48. École Pratique d'Agriculture de Genouillac	10	Cowherds, gardeners, vine-growers, coopers, farm-laborers
49. École Nationale d'Oisellerie de Fayl-Billot (Haute-Marne)	45	Basketmakers
50. Bergerie Nationale de Rambouillet	25	Shepherds

AGRICULTURAL SCHOOLS (*Continued*)

<i>Name of School</i>	<i>Number of Places</i>	<i>Instruction Given In</i>
51. Auch	}	Have established or will establish special schools for mutilated men
52. Bourges		
53. St.-Etienne (Sect. hort.)		
54. Lyon		
55. St.-Émilion		
56. Chateauroux		
57. Royat		

COMMERCIAL SCHOOLS

58. Clermont-Ferrand	90	Typewriting, shoemaking, tailoring, accounting, turnery, toymaking, mechanics
59. Thiers	30	Cutlery-making, mounting of clasp-knives, cutting of furnishings, polishing and making of handles
60. Fayl-Billot	10	Basketmaking
61. Elbeuf	20	Drapery, twisting, sampling, etc., factory and store-clerking
62. Oyonnax	50	Celluloid industry (the future workman should be willing to settle at Oyonnax, which is the only locality where this industry is carried on), engraving, cutting, grooving, punching, turning, etc. (which can be done at home), accounting
63. Cluses	70	National school of clock and watchmaking, finishing, assembling, etc., repairing, manufacture of automobile machines
64. Roanne	50	Cotton-weaving, hosiery, accounting, commercial clerking, etc.
65. Angers	30	Industrial design, tracing, school for foremen, surveying
66. Cluny	80	Industrial design, tracing, school for foremen, surveying
67. Marseille	100	Shoemaking, tailoring, accounting, clerking, stenography, typewriting, tracing, industrial design, wood and metal turning, joinery, mechanics, model making, electricity, jewelrymaking, tinsmithing, boilermaking, moulders, founding, coppersmithing
68. Le Havre	50	Harnessmaking, shoemaking, tailoring, metal and woodturning, reaming, counter-sinking, locksmithing, tinsmithing, industrial design, clerking
69. Cherbourg		In formation

APPENDIX C

Description and List of Bodies Visited which are Dependent upon Private Benevolence, but Exercise Functions Connected with the Return of Disabled Men to Civilian Life.

1. Association pour L'Assistance aux Mutilés Pauvres, 21, Rue François 1^{er}, Paris.

This association was established in 1868 for the purpose of supplying artificial limbs to poor people. Its direction is distinguished and competent. At first, it gave artificial limbs to soldiers. At present, its chief work is to advance supplies, to the value of not more than five hundred francs, to men who are returning to their homes, in order to enable them to acquire an outfit and commence work.

As a rule, those to whom advances are made are artisans; agriculturists are able to obtain credit from the 'Crédits Agricoles' by the influence of the 'Syndicats Agricoles' to which they belong. The loans are made upon their honor to men who can prove their need and their capacity for work; they are repayable in eighteen months; application for a loan is made personally or in writing.

The Society advertises its function (Appendix F-32) in the hospitals, and through nurses and others, does everything possible to make disabled men understand that they can still be self-supporting. Branches and correspondents of the society have been arranged for throughout France. Its funds are obtained from private benevolence. It has been recognized by the Government as being of public service, and it is doing useful work.

2. Association des Œuvres de la Croix-Verte, 6, Rue Schoelcher, Paris.

This society was founded in 1914. It has three sections; one meeting the wounded at the railroad stations, the second supplying them with clothing, and the third seeking to provide them with employment. It has, so far, placed about two hundred and ninety men. It has about twenty branches in the provinces. One of its principles is to return men, as far as possible, to their homes in the country. It depends upon subscriptions obtained from the public in vari-

ous ways for its maintenance; one source of income is the profit derived from the insistent sale in the streets of a periodical newspaper published by and for the benefit of the society.

Other societies raise funds in the same way. Samples of the periodical produced by the Croix-Verte (Appendix G-27) and of one other publication are appended to the report (Appendix F-26).

3. L'Atelier de Blessés, 21, Boulevard Beauséjour, Paris.

This Society was founded in October, 1915, under distinguished patronage; it is maintained through private subscriptions by a Committee of ladies. It established its first workshop in connection with a convalescent hospital established in the 'École Nationale des Arts et Métiers'. This workshop consists of a large room in the hospital. Light occupations of various sorts are carried on. Towels, bags, flares, and various objects requiring but little effort in their manufacture, are made for the army. The sewing-machines and other tools employed represent but a small outlay. It is intended to establish similar workshops in other hospitals at various places throughout France; one has already been established in the Grand Palais (Appendix A-6).

The idea underlying the establishment of such workshops is a good one; for they provide remunerative work in the hospitals for those who volunteer for it and are able to do it. Since they are under the control of the military authorities, they have a distinct value in the functional re-education of disabled men.

4. Les Blessés au Travail, 154, Avenue des Champs-Élysées, Paris.

This society was established in October, 1914, under distinguished patronage and direction. Its main object is to supply, free of cost, raw material for light occupations to soldiers while they are in hospital and to teach them how to use it. It also attempts to find employment for men; it maintains a small workshop and occasionally supplies artificial limbs. It has branches in at least twelve cities. It is maintained entirely by subscriptions.

In Paris about ninety-five women are actually engaged in teaching wounded soldiers. Practically, the only occupations taught are various forms of basket and toy-making. The objects made are the property of the soldier who may dispose of them as he will. If he wishes to sell them, the society buys them and markets them at a reasonable advance on their cost which does no more than pay the society's expenses.

The purpose with which the society has been founded is, by securing occupation to men in the hospitals, to preserve habits of work in them. It adheres closely to that ideal and intends to disappear when need for it ends.

5. La Chambre Syndicale de la Bijouterie Fantaisie, 25, Rue Chapon, Paris.

This trade society has opened a section for disabled soldiers in the school which it maintains for the training of apprentices. So far, forty men have passed through the school and have easily found good employment. After an apprenticeship of from six to eight months, men commence by earning at least five francs a day. The cost of their maintenance at the school is borne by their pension or by grants received from 'La Fédération d'Assistance aux Mutilés' (see below) or similar societies.

6. Fédération Nationale d'Assistance aux Mutilés, 63, Avenue des Champs-Élysées, Paris.

This society is an important one directed by well-known men. It was established as the result of appeals made through the *Écho de Paris* by Barrès, in February, 1916; it is said that about \$360,000 has been collected in this way. It has branches in twenty-four towns. The activities of the society are comprehensive. The problems surrounding the return of disabled men to civil life are well understood by its directors. The society advises men in the choice of a new profession. It provides facilities for their re-education in its own workshops and elsewhere. By gifts of money, it maintains men while they are being re-educated; it provides artificial appliances and assists men to find employment. It has already done much good work. It is supported by private subscriptions.

7. Œuvre des Amputés de Guerre, 67 bis, Rue Duplessis, Paris.

This society was founded in December, 1914. Its chief work has been to supply artificial limbs; about 350 have been distributed. It attempts to find situations for those who require them, and it assists men to return to their families. Its members visit the hospitals and assist wounded soldiers in whatever way they can. The society returns the bodies of men who have suffered amputation and who may die in military hospitals to their families. It depends for its funds upon private subscriptions. Although the names of one or two important persons appear upon its list of honorary officials, and although it possesses branches both in and outside of Paris, it is evidently an ephemeral and unimportant organization.

8. Institut National de Rééducation Professionnelle, Place des Peupliers, Paris.

This institution is housed in a building belonging to 'La Protection Mutuelle des Employés et Ouvriers des Chemins de Fer de France et des Colonies' and is supported by that society; it, the Union of the Railroad employees—'les Cheminots'—is a most powerful organization.

At present, the building is in due course of construction and will not be completed for some weeks. The institute is being established and organized under the close personal direction of Professor Amar (Appendix A-17). It is situated on a very desirable site, in a densely populated workmen's quarter. It is the intention that those attending the school should find their lodgings in the neighborhood. Those admitted to the school will have completed their hospital treatment and will require only functional and professional re-education. It is intended to give instruction in rough and fine machine work, industrial design, coppersmithing, tinsmithing, electrical engineering, repairing of motors, woodturning, woodcarving, joinery, shoemaking, manufacturing orthopedics, accounting, type-writing and the cutting of precious stones. The institution will be able to accommodate about 350 pupils.

APPENDIX D

*List of Bodies, Usually Maintained by Private Benevolence, which Perform Activities Connected with the Return of Soldiers and Sailors to Civil Life.*¹⁹

This is only an incomplete list of institutions existing in Paris; there are many others unmentioned. In the same way, there are numerous societies in every town in France, some local, others branches of bodies with headquarters in Paris. All attempt some function concerned with the return of disabled men to civilian life, and all are dependent for their funds upon subscriptions received from private persons. Some of the societies are of considerable importance (2, 5, 7, 32, 62); many of the others are negligible and it would be better if they had never existed. The situation has made it necessary to propose legislation which will probably be adopted, for the purpose of controlling such societies and their calls upon private benevolence.

As their names indicate, many of the societies are concerned primarily with Belgians, with refugees from the invaded provinces of France, or with interests unconnected with soldiers and sailors. As far as soldiers and sailors are concerned, the majority of the societies are concerned with the professional re-education of wounded men or with obtaining employment for them. In order to secure coordination in their work, a clearing-house has been arranged by the 'Comité de Secours National' (27) to which practically all of the societies attempting to provide employment daily send a list both of employment offered and of disabled men seeking occupation.

Samples of the forms used by the societies doing this work are appended to the Report (Appendix F-21).

1. Aide fraternelle aux Réfugiés et Évacués Alsaciens-Lorrains, 7, rue Tronchet (8^e), *Paris*.
2. Aide immédiate aux Mutilés et Réformés de la Guerre, 325, rue Saint-Martin, *Paris* (See Appendix G-80).
3. Amélioration du Logement Ouvrier, 92, rue du Moulin-Vert (14^e), *Paris*.

¹⁹ A fairly complete list of works of private initiative may be obtained by reference to 'Paris Charitable pendant la Guerre', published by Plon-Nourrit et Cie, 8, rue Garancière, *Paris*.

4. Madame Amen (carpet-making), 145, boulevard Malesherbes, *Paris*.
5. Amis des Soldats Aveugles (Les), 130, avenue Daumesnil (Assistance aux Mutilés), *Paris*.
6. Appui aux Artistes, Pavillon de Flore, (6 bis) Assistance aux Dépôts d'Éclopés, Champs-Élysées, *Paris*.
7. Association pour l'Assistance aux Mutilés Pauvres, 21, rue François 1^{er}, *Paris*.
8. Association Centrale du Travail, 22, rue des Grands Augustins, *Paris*.
9. Association des Étudiantes, 55, rue Saint-Jacques, *Paris*.
10. Association Mousienne (Comité de Secours aux Réfugiés), 41, Faubourg Montmartre, *Paris*.
11. Association des Œuvres de la Croix-Verte, 6, rue Schoelcher, *Paris*.
12. Atelier de Blessés, 21, boulevard Beausejour, *Paris*.
13. Blessés au Travail (Les), 154, avenue des Champs-Élysées, *Paris*.
14. Bureau Municipal de Placement gratuit du 14^e Arrondissement, rue Saillard, *Paris*.
15. Bureau Municipal de Placement gratuit du 17^e Arrondissement, 13, rue Traffaut, *Paris*.
16. Bureau Spécial des Réfugiés Belges, Pavillon Ledoyen, avenue des Champs-Élysées, *Paris*.
17. Cantine Franco-Belge, 24, rue de la Fidélité, *Paris*.
18. Cantine Refuge du 6^e Arrondissement, 16, rue de l'Abbaye, *Paris*.
19. M. Carnot (toy-making), 2, avenue Montespan, *Paris*.
20. Chambre Syndicale de la Bijouterie Fantaisie, (La), 25, rue Chapon, *Paris*.
21. Cirque de Paris, 11 bis, rue Duvivier, *Paris*.
22. Comité de l'Aisne, Mairie du 10^e Arrondissement, 72, faubourg Saint-Martin, *Paris*.
23. Comité Ardennais, 22, galerie d'Orléans, *Paris*.
24. Palais Royal, Comité Central Franco-Belge, 32, rue Louis-le-Grand, *Paris*.
25. Comité de Meurthe-et-Moselle, 1, rue des Mathurins, *Paris*.
26. Comité du Pas-de-Calais, 9, rue Foyatier, 18^e, *Paris*.
27. Comité de Secours National, 13, rue Suger, *Paris*.
28. École d'Apprentissage pour les Mutilés de la Guerre, 5, rue de la Durance, *Paris*.
29. Entr'aide Artistique—Cantine A, 125, boulevard Montparnasse, 6^e, *Paris*.
30. Entr'aide Sociale, 20, rue Pergolèse, *Paris*.
31. Fédération Française des Blessés Militaires.
32. Fédération Nationale d'Assistance aux Mutilés, 63, avenue des Champs-Élysées, *Paris*.

33. Fédération Nationale des Mutilés de la Guerre.
34. Fondation Mamoz pour l'Assistance par le Travail, 170, Faubourg Saint-Honoré, *Paris*.
35. Foyer Franco-Belge, 20, rue Royale, *Paris*.
36. Foyer National des Combattants Mutilés, 24, rue Caumartin, *Paris*.
37. M. Hirsch (glass-blowing), 9, rue de l'Éperon, *Paris*.
38. La Picardie, 14, rue Oudinot, *Paris*.
39. Le Matin (Employment Bureau), rue du Faubourg Poissonnière, *Paris*.
40. Ligue de Protection Sociale, Section de 6^e Arrondissement, 119, boulevard Raspail, *Paris*.
41. Ligue de Protection Sociale du 14^e Arrondissement, 3, rue Vercingetorix, *Paris*.
42. Logement Ouvrier, Section de Levallois-Perret, 34, rue Antoine Raynaud, *Paris*.
43. Œuvre des Amputés de Guerre, 67 bis, rue Duplessis, *Paris*.
44. Œuvre Fraternelle des Mutilés et Convalescents Militaires, 213, rue Lafayette (9^e), *Paris*.
45. Œuvre Nationale pour la Protection des Veuves et Orphelins de la Guerre, 188, Faubourg Saint-Martin, *Paris*.
46. Œuvre de Rééducation Professionnelle des Mutilés de la Guerre, 140, rue de Bagneux, *Paris*.
47. Œuvre de Secours aux Réfugiés de Nord et des Régions Envahies, 11, rue Lafitte, *Paris*.
48. Œuvre de Secours aux Réfugiés de la Salle Wagram, 39 bis, avenue de Wagram, *Paris*.
49. Œuvres de Secours aux Réfugiés du Séminaire St. Sulpice, 9, place Saint-Sulpice, *Paris*.
50. Pour le Foyer du Soldat Aveugle, 64, rue du Rocher, *Paris*.
51. Secrétariat Féminin de la Maison Fraternelle, 37, rue Tournefort, *Paris*.
52. La Solidarité Catholique, 137, boulevard Saint-Germain, *Paris*.
53. Société Amicale de la Marne, 29, boulevard du Temple, *Paris*.
54. Société d'Assistance par le Travail (attempts professional re-education; woodworking), 5, rue de la Durance, *Paris*.
55. Société pour le Développement de l'Apprentissage dans les Métiers du Batiment, 21, rue de la Viète, *Paris*.
56. Société des Visiteurs, 5, rue de Poitiers, *Paris*.
57. Toit Familial (Le), 9, rue Guy Patin, *Paris*.
58. Union Belge, 80, rue du Faubourg Saint-Denis, *Paris*.
59. Union des Arts (Holds an exhibition and sale of objects made by the wounded), Champs-Élysées, *Paris*.
60. Union des Colonies Étrangères en France, 3, rue Scribe, *Paris*.
61. Vestiaire Parisien (Le), 10, rue Monsieur le Prince, *Paris*.
62. The following three societies compose the French Red Cross Society. They are named in the order of their establishment:
- (a) Société de Secours des Blessés Militaires, 2, rue François 1^{er}, *Paris*.
- (b) Association des Dames Françaises, 12 rue Gaillon, *Paris*.
- (c) Union des Femmes de France, 16, rue de Thann, *Paris*.
63. Association Valentin Haüy (cares for the blind), 5, 7 & 9, rue Duroc, *Paris*; 22, rue Lamande, *Paris* (Fondation Blouet).
64. Protection Mutuelle des Employés et Ouvriers des Chemins de Fer de France et des Colonies, place des Peupliers, *Paris*.
65. Culat, Monsieur; Œuvre servant à la Rééducation des Mutilés de la Guerre, 52, rue des Épinettes, *Paris*.
66. Dumesnil, M. et Madame; Œuvre servant à la Rééducation des Mutilés de la Guerre, Œuvre dite 'de la Rapée', 28, quai de la Rapée, *Paris*.

APPENDIX E

Partial List of Persons Interviewed

1. AMAR, Professeur Jules, Directeur du Laboratoire de Prothèse (Service de Santé, Ministère de la Guerre) Conservatoire National des Arts et Métiers, 292, rue Saint-Martin, *Paris*.
2. BASEQUE, Azer, Directeur de l'École Joffre, L'École Professionnelle des Blessés, 41, rue Rachais, *Lyon* (Rhône).
3. BILLAULT, Capitaine, Office National de Placement des Réformés et Mutilés de la Guerre, 95, quai d'Orsay, *Paris*.
4. BOURRILLON, Docteur, Directeur de l'Institut Professionnel des Invalides de la Guerre de Saint-Maurice (Asile National de Convalescents), 14, rue du Val de l'Osne, *Saint-Maurice* (Seine).
5. BOURLON DE SARTY, Président de l'Association de l'Assistance aux Mutilés Pauvres, 4, rue Saint-Georges, *Paris*.
6. BRISSAC, Directeur de l'Assistance et de l'Hygiène Publique, Ministère de l'Intérieur, 11, rue Cambacères, *Paris*.
7. COLLIGNON, Victor, Directeur de l'Institution Nationale des Sourds-Muets, 254, rue Saint-Jacques, *Paris*.

8. DUBOIS, N., Directeur des Ateliers Départementaux pour les Ouvriers Mutilés, Estropiés ou Infirmes, 64, rue Arsène Chéreau, *Montreuil* (Seine).
ATELIERS: 97, rue Campans; 13, rue Planchat, *Paris*.
9. FUSTER, Professeur au Collège de France, 4, rue Moulin-Bert, *Paris*.
10. GABELLE, Directeur du Conservatoire National des Arts et Métiers, 292, rue Saint-Martin, *Paris*.
11. GOURDON, Isaac, Médecin-Major, Directeur de l'École Pratique et Normale de Rééducation Professionnelle des Mutilés et Estropiés de la Guerre, 62, cours de l'Intendance, *Bordeaux* (Gironde).
12. HELLBRON, Secrétaire les Blessés au Travail, 154, Avenue des Champs-Élysées, *Paris*.
13. HIRSCHFELD, Gustave, Directeur École Professionnelle des Blessés, École de Tourvielle, 25, chemin de Tourvielle près la place du Jour (in association with Madame Monod). *Lyon* (Rhône).
14. LEJEUNE, Commandant, l'Institut Militaire Belge de Rééducation Professionnelle, *Port-Villez-les-Vernon* (Eure).
15. LEROY LEWIS, Colonel H., Attaché Militaire, British Embassy, 39, rue du Faubourg Saint-Honoré, *Paris*.
16. MARCH, Président de la Commission d'Administration de l'Office National des Mutilés et Réformés de la Guerre, 97, quai d'Orsay, *Paris*.
17. MARCHOUX, Médecin-Chef de la Place de Paris, Hotel des Invalides, esplanade des Invalides, *Paris*.
18. MARSAUD, Directeur Général Honoraire au Ministère des Finances, en mission au Ministère de la Guerre, rue de Bellechasse, *Paris*.
19. MARSAUD, Capitaine, Cabinet du Ministre, Ministère de la Guerre, 14, rue Saint-Dominique, *Paris*.
20. MASSE, Pierre, Député, 27, avenue de l'Alma, *Paris*.
21. PIQUENARD, Chef de Cabinet du Ministre, Ministère du Travail, 1, rue de Grenelle, *Paris*.
22. PLISSON, Major de 2^e Classe, Sous-Secrétariat d'État du Service de Santé, Ministère de la Guerre, 231, boulevard Saint-Germain, *Paris*.
23. PUOY, Médecin-Principal, Service de Santé, Ministère de la Guerre, 231, boulevard Saint-Germain, *Paris*.
24. ROULET, Médecin-Major, Directeur de l'Hôpital Militaire de la Maison-Blanche, *Neuilly-sur-Marne*.
25. SIMONIN, Directeur des Services Techniques, Sous-Secrétariat de la Santé, Ministère de la Guerre, 231, boulevard Saint-Germain, *Paris*.
26. TENOT, H., Directeur de l'Enseignement Technique, Ministère du Commerce et de l'Industrie, 101, rue de Grenelle, *Paris*.
27. VALERY-RADOT, René, Président les Amis des Soldats Aveugles, 3, rue Saint-Dominique, *Paris*.
28. VAUGHAN, Ernest, Directeur des Quinze-Vingts, 28, rue de Charenton, *Paris*.
29. METIN, Albert, Ministre du Travail et de la Prévoyance Sociale, rue de Grenelle, *Paris*.
30. CROZE, J. L., Lieutenant, Chef du Service Cinématographique de l'Armée, 3, rue François 1^{er}, *Paris*.

APPENDIX F

List of Documents Attached to Report, which May Be Useful in Suggesting Measures for Canada

Publications Used in the Teaching of Accounting

1. Books and forms used in teaching accounting at the École Joffre (Appendix A-4).
2. Forms used in teaching accounting at Bordeaux (Appendix A-3).

Publications Dealing with the Organization and Operations of Certain Institutions, or Concerned with Professional Re-education.

3. Bordeaux school—card indices (Appendix A-3).
4. Bordeaux school—workshop notebook.
- 5 and 6. Bordeaux school—progress reports.
7. Bordeaux school—constitution and regulations.
8. Rules and regulations of public workshops (Appendix A-2).
9. Circular of the center of re-education at Saint-Maurice (Appendix A-10).
10. Regulations of Maison de Convalescence at Reuilly. (Appendix A-1).
11. Work cards distributed at the Maison de Convalescence (Appendix A-1).
- 11a. Description of the organization and work of the center of re-education at Saint-Étienne (Appendix B-24; Appendix A-5).

Forms Filled Up at the Entrance of Patients to Centers of Re-education

12. Card indices employed at Vernon (Appendix A-9).
13. Circular, combined with application for admission, issued by Saint-Maurice (Appendix A-10).
14. Forms filled upon admission to the École Joffre (Appendix A-4).
15. Statement of aptitudes originated by Professor Amar (Appendix E-1; A-17).

16. Documents established for all patients admitted to the Bordeaux school (Appendix A-3), together with the envelope in which patients' records are preserved.
17. Statement of aptitudes employed at Vernon (Appendix A-9).

Description and Cards Used for Recording Physiotherapeutical Treatment at Centers of Re-education

18. Cards used at Grand Palais (Appendix A-6).
19. Cards used at Vernon (Appendix A-9).

Forms Used in Providing Assistance or Employment for Ex-soldiers

20. Forms used by 'Les Blessés au Travail' in recommending a man for a situation (Appendix C-4; D, Introduction).
21. Forms used by the 'Secours National' for the clearing-house established by it for the private labor exchanges dealing with disabled soldiers in Paris (Appendix D, Introduction; D-27).
22. Questionnaire employed by the 'Assistance aux Mutilés' in gathering information concerning applicants for assistance (Appendix C-6).
23. Questionnaire used by the 'Assistance aux Mutilés Pauvres' in gathering information concerning applicants for assistance (Appendix C-1).
24. Questionnaire used by 'Les Œuvres de la Croix-Verte' (Appendix C-2).
25. Forms used by 'L'Office National de Placement des Mutilés et Réformés de la Guerre' in acquiring and recording information concerning applicants for employment; also a statement of its first plan of organization (Appendix A-14).
26. One of many publications sold on the streets for the benefit of various societies connected with works of private benevolence.

Documents Touching Certain Official Activities in Matters Connected with the Establishment of Ex-soldiers in Civilian Life

27. The organization of an exhibition of work done by wounded soldiers.
28. Notice of the establishment of 'L'Office National des Réformés et Mutilés de la Guerre'. (Journal Officiel, March 3, 1916.)
29. Program of matters to be studied drawn up at one of the first meetings of 'L'Office National des Réformés et Mutilés de la Guerre': it is the function of this body to secure properly coordinated, administrative control of all questions concerning the return of ex-soldiers and ex-sailors to civilian life (Appendix A-13).

30. The Minister of Labor gives the Prefects instructions concerning Labor Bureaus.

Posters and Postcards Used in Obtaining Publicity

31. By 'Les Blessés au Travail' (Appendix C-4).
32. By 'L'Assistance aux Mutilés Pauvres' (Appendix C-1).
33. By the 'City of Paris' (Appendix B-4).
34. By the centers of re-education at Saint-Maurice (Appendix A-10).
35. By the Belgian institution at Vernon (Appendix A-9).

Suggestions Already Made Concerning Measures to Be Adopted by Canada

36. Report of the Pensions and Claims Board.
37. Disability table. (This table is based upon the *Guide-Barème des Invalidités* of the French Government [Appendix C-31] and upon the experience of France, Germany, Austria, Italy, and the United States, among other countries, in the estimation of the extent of incapacities resulting from injuries.)

Prosthetic Appliances

38. Commission d'Orthopédie de France (Appendix A-15). (Plans and Specifications of artificial arms supplied by the French Government. Descriptions of the artificial legs and of other prosthetic appliances adopted by the Commission will be supplied to the Director of Medical Service, Canadian Contingents.)
39. Form (Army Form B-179, Canada) used by medical boards of the Canadian Expeditionary Force in recording their proceedings.
40. Cards used by 'L'Office National des Mutilés et Réformés de la Guerre' in recording particulars concerning discharged soldiers.

APPENDIX G

List of Publications Consulted

1. AMAR, Jules, *La Prothèse et le Travail des Mutilés*. H. Dunod & E. Pinat, 47/49, quai des Grands-Augustins, Paris. 1916.
- 1a. AMAR, Jules, *Appareils de prothèse du membre supérieur*. Comptes-rendus, t. 162, p. 401, Séance du 13 Mars, 1916. L'Académie des Sciences. 55, Quai des Grands-Augustins, Paris.
2. AMAR, Jules, *La Rééducation professionnelle des Blessés et des Mutilés de la Guerre*. Journal de Physiologie et de Pathologie générale. Masson

- & Co., Éditeurs, Librairies de l'Académie de Médecine, 120 boulevard Saint-Germain, Paris. July, 1915.
3. *Le Placement public en Grande-Bretagne pendant la Guerre.* Circulaires du Secrétariat général, No. 25. Published by the Association Française pour la Lutte contre le Chomage, 1st June, 1915; 34, rue de Babylon, Paris.
 4. *Les Blessés au Travail, Œuvre pour les Soldats Convalescents ou Réformés.* Fondée en Octobre 1914. Rattachée au Ministère de la Guerre. 154, avenue des Champs-Élysées, Paris.
 5. BOURRILLON, Dr., *Professional re-education of those disabled by the War.* Extract from Revue Bleue, 11-18th December, 1915. Conference delivered by M. le Dr. Bourrillon before the Alliance d'Hygiène Sociale'.
 6. BOURRILLON, Dr., *La Rééducation professionnelle des Invalides de la Guerre.* Extract from La Revue Philanthropique, December, 1915, and January, 1916. Masson & Co., Éditeurs, 120, boulevard Saint-Germain, Paris.
 7. BORNE, M. le Dr., *La Rééducation et la Réadaptation au Travail des Blessés et des Mutilés de la Guerre.* Extract from Bulletin Société d'encouragement pour l'industrie nationale. Philippe Renouard; 19, rue des Saints-Pères, Paris, 1915.
 8. BOURLON, M. de Sarty, *Rapport sur les travaux et la situation de l'œuvre.* Association pour l'assistance aux Mutilés pauvres: fondée 1868. Imprimerie et librairie centrales des chemins de fer; 20, rue Bergère. 1916.
 - 8a. BOURLON, M. de Sarty, *Rapport sur les travaux et la situation de l'œuvre.* Association pour l'assistance aux Mutilés pauvres: fondée 1868. (La Chromographie française, 5, rue Lanlardie, 1917.)
 9. BRISAC, Jules, *La Guerre et l'Assistance au Blessés de la Tuberculose.* Revue Scientifique, 12-19 February, 1916, p. 100; 41 bis, rue de Château-dun, Paris.
 10. *Mesures d'hygiène à prescrire dans les régions qui ont été le théâtre des opérations de guerre.* Extract from the Revue d'hygiène et de police sanitaire, Tome XXXVII, No. 3, p. 227, March, 1915. Masson & Co., Éditeurs; 120, boulevard Saint-Germain, Paris.
 11. BRISAC, Jules, *Les Services d'assistance et les œuvres de guerre.* La Revue Philanthropique, p. 65, 15th February, 1916. Masson & Co., Éditeurs, 120, boulevard Saint-Germain, Paris.
 12. *Assistance aux militaires tuberculeux.* Sommaire, Commission permanente de préservation contre la tuberculose, 15th January, 1916: Ministère de l'Intérieur; République Française.
 13. *Stations sanitaires pour soldats tuberculeux.* Sommaire, Commission permanente de préservation contre la tuberculose; 6th November, 1915; Ministère de l'Intérieur; République Française.
 14. *Conditions d'admission dans les centres de rééducation professionnelle.* Circulaire No. 16, Direction de l'Assistance et de l'Hygiène Publiques; Paris, 16th February, 1916: Ministère de l'Intérieur; République Française.
 15. *Règles relatives aux centres de rééducation professionnelle.* Ministère de l'Intérieur; République Française.
 16. CARLE, M. Dr., *Les Écoles professionnelles des blessés.* Imprimerie A. Rey, 4, rue Gentil, Lyon. Preface by M. Ed. Herriot.
 - 16a. CARLE, M. Dr., *Les Écoles professionnelles des blessés.* Preface by M. Edouard Herriot. Imprimerie A. Rey, 4, rue Gentil, Lyon. 1915.
 17. *L'Ambulance.* Journal périodique; Organe officiel de la Croix-Verte; 8, rue de l'Agent-Bailly. Paris (IX); 10th February, 1916.
 18. DELTENRE, Dr. Armand, *L'Hôpital Anglo-Belge.* Institut de Physiothérapie et d'Orthopédie de l'Armée Belge; Rouen. Imp. de l'Institut Militaire Belge de Rééducation Professionnelle; Port-Villez, Vernon (Eure), 1916.
 - 18a. CONFÉRENCE INTERALLIÉE pour l'Étude de la Rééducation professionnelle et des questions qui intéressent les Invalides de la Guerre, 12 Mai 1917. Plan of the buildings at the Institut Militaire Belge des Mutilés, Invalides et Orphelins à Port Villez, par Vernon (Eure).
 19. DUBOIS, Notes and publications concerning *Les Ateliers Départementaux.* 64, rue Arsène-Chéreau, Montreuil sous-Bous (Seine).
 20. VITOUS, Dr. George, *L'Assistance aux Mutilés de la Guerre.* Le Petit Parisien; 19th January, 1915.
 21. EHRHARD, Auguste, *Les Œuvres de l'Hôtel de Ville pendant la Guerre.* A. Rey, Imprimeur-Éditeur; 4, rue Gentil, Lyon. 1916.
 22. FÉDÉRATION NATIONALE d'Assistance aux Mutilés. Siège Social; 63, avenue des Champs-Élysées, Paris. 1st of February, 1916. Imp. Maulds, Doumène & Co., 144, rue de Rivoli, Paris.
 23. *Rééducation professionnelle des Blessés, Mutilés et Estropiés de la Guerre* (Rapport a M. le Ministre du Commerce et de l'Industrie). Bulletin de

- l'Enseignement technique No. 12, p. 237, 31st December, 1915. Librairie Vuibert; 63, boulevard St. Germain, Paris.
24. *Étude de Traitement de Bégaiement par la Photographie.* Revue Générale de l'Enseignement des Sourds-Muets; April, 1914. Atelier Typographique de l'Institution Nationale des Sourds-Muets; 254, rue Saint-Jacques, Paris.
- 25a. *Quelques Méthodes de Rééducation auditive.* Revue Générale de l'Enseignement des Sourds-Muets; July-September, 1915. Atelier Typographique de l'Institution Nationale des Sourds-Muets; 254, rue Saint-Jacques, Paris.
- 25b. *Quelques Méthodes de Rééducation auditive.* Revue Générale de l'Enseignement des Sourds-Muets; October, 1915. Atelier Typographique de l'Institution Nationale des Sourds-Muets; 254, rue Saint-Jacques, Paris.
- 25c. *Quelques Méthodes de Rééducation auditive.* Revue Générale de l'Enseignement des Sourds-Muets; December, 1915. Atelier Typographique de l'Institution Nationale des Sourds-Muets; 254, rue Saint-Jacques, Paris.
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APPENDIX H

Military Hospitals and Convalescent Homes Commission, Ottawa, Canada.

An Order in Council, dated 8th of October, 1915, appointed the 'Military Hospitals and Convalescent Homes Commission', and vested it with powers of the greatest width and importance; this Commission thus assumed, among others, the activities which were to have constituted the duties of the 'Military Hospitals Commission', established in June, 1915, and now placed by the 'Military Hospitals and Convalescent Homes Commission'. On the 20th of October, 1915, a conference was held by the Commission with the Provincial governments.

Provincial members have been added to the personnel of the Commission from the beginning, representative of each Canadian province—and provincial branches of the Commission have been established in every province of the Dominion.

The 'Military Hospitals Commission', as it is usually called, has been most active, and has, both by the establishment of hospitals and convalescent homes, among other institutions, and by the provision of machinery for considering and caring for their needs, done much to insure the proper return of Canadian soldiers to civilian life. The Bulletin published by the Military Hospitals Commission publishes a current account of its activities.

On the 24th of June, 1916, Order-in-Council, P.C. 1469, approving the creation of the Military Hospitals Commission Command, was passed. This Command to form part of the Canadian Expeditionary Force for Home/Service and to consist of men returned invalided from the Front and convalescent men from Overseas Battalions to be under the Military Hospitals Commission in all matters connected with Command, administration and discipline subject to the requirements of the military service.

The following are the Members of the Military Hospitals Commission (Military Hospitals and Convalescent Homes Commission):

President

The Honorable J. A. LOUGHBEED, P.C., K.C.

Members

The Hon. THOMAS W. CROTHERS, P.C., K.C., Ottawa.
 ROBERTS GILL, Esq., Ottawa.
 W. M. DOBELL, Esq., Quebec.
 Hon. Colonel Sir RUDOLPH FORGET, M.P., Montreal.
 W. K. GEORGE, Esq., Toronto.
 LLOYD HARRIS, Esq., Brantford.
 J. H. S. MATSON, Esq., Victoria.
 D. LORNE GIBBON, Esq., Montreal.
 The Hon. JOHN S. McLENNAN, Sydney.
 Colonel Sir H. M. PELLAT, C. V. O., Toronto.
 Lieutenant-Colonel C. W. ROWLEY, Winnipeg.
 Lieutenant-Colonel CLARENCE F. SMITH, Montreal.
 Lieutenant-Colonel THOMAS WALKER, M.D., St. John.
 SMEATON WHITE, Esq., Montreal.
 The Director General of Medical Services, Ottawa.

Ex-Officio Members

(Appointed by arrangement with the Provincial Governments)

Ontario—W. D. McPHERSON, Esq., K.C., M.P.P., Toronto.

Quebec—The Hon. George A. Simard, M.L.C., Montreal.

Nova Scotia—The Hon. R. M. McGREGOR, New Glasgow.

New Brunswick—THOMAS H. BELL, Esq., St. John.

Manitoba—Sir DANIEL McMILLAN, K.C.M.G., Winnipeg.

British Columbia—The Hon. H. E. YOUNG, M.D., L.L.D., M.P.P., Victoria.

Prince Edward Island—Hon. J. A. MATHIESON, M.P.P., Charlottetown.

Saskatchewan—The Hon. Mr. JUSTICE ELWOOD, Regina.

Alberta—The Hon. C. W. FISHER, M.P.P., Edmonton.

A Parliamentary Committee, consisting of Messrs. Green, Hazen, Lemieux, MacDonald (Pictou), MacDonell (South Toronto), Oliver and Scott, was appointed on March 14, 1916 (see Hansard of same date), to consider the pensions question. It appears, from telegraphic reports in British papers, that this Committee has already, in part at least, made its report.²⁰

(This Committee had before it the Report of the Pensions and Claims Board, which forms part of this Report, as well as recommendations from the Office of the Director of Medical Services and from other sources.)

APPENDIX I

The Inter-Allied Conference

The Inter-Allied Conference for the study of professional re-education and other questions affecting soldiers and sailors disabled by the war took place in Paris from May 8 to May 12, 1917.

The Conference was divided into six sections. Opportunities were given for visiting hospitals and schools of re-education in Paris and the neighborhood. The sections were as follows:

1. Physical re-education or treatment.
2. Professional re-education or training.
3. The placing and employment of disabled men in civilian life.

²⁰ This Report was laid before the House on May 10, 1916. On its recommendations the Board of Pension Commissioners or Canada was established.

4. The economic and social interests of the disabled.
5. The blind.
6. Documentation and propaganda of methods relating to the disabled.

There were present at the Conference representatives from Great Britain, Canada, France, Belgium, Russia, Portugal, Italy, and Serbia. Great interest in the Conference was displayed by a large section of the French public.

The main conclusions arrived at by the Conference were as follows:

1. *Physical Re-education or Treatment.* The French *Service de Santé* has created a commission for the study of orthopedic questions, an organization to control the making and application of apparatus, and centers for orthopedic treatment and re-education. In France and Belgium no man is discharged from the Army until his cure is completed in so far as possible. Two important resolutions in respect to this subject were the outcome of the Conference, namely, that (1) a Board of Research and Study should be established in every one of the Allied countries, and (2) that an Inter-Allied Commission should be constituted to examine everything bearing upon the question of prosthesis.

2. *Training or Professional Re-education.* Training or workshops are attached to all the French hospitals, and large establishments are set up for re-education. In France, Belgium, and Italy training is compulsory and the doctor has the principal choice in deciding what trade the man is to follow. The general idea is that better results are obtained by allowing the training to be voluntary, but in France and Italy this training ceases as soon as a man is discharged from the army. In both these countries, as in Great Britain, difficulty is experienced in persuading men to undergo re-education. Unanimous approval was expressed in regard to Section 6 of the British Royal Warrant which provides for the payment of a man during the period that he is undergoing re-education or treatment.

3. *Employment.* As France is an agricultural country, the great question there is to get men back to the land, but in many ways the difficulties experienced in France are much the same as those in other countries. Her organization is not on such an excellent basis as that of England. In respect of insurance, a law has recently been passed by which the State pays the difference in the rate of insurance charged for a disabled man, and that for a normal one from a fund created by a special tax on all employers. In Italy workingmen's insurance companies are obliged to insure all disabled soldiers who have gone back to work of any kind.

4. *Government Action and Responsibility Generally.* The centralization of authority in England greatly appealed to the Allies. In France, in consequence of so many Departments having charge of the returned soldier there is much overlapping and the same is true of other countries with the exception of Belgium. As regards pensions, French legislation is still in a state of revision. One of the results of the discussion on pension was Resolution 24, promising special study of special cases in order that special circumstances might be taken into account in the awarding of pension.

5. *Future Inter-Allied Action.* Common action between the Allies was recommended for the future, and it was resolved that an Inter-Allied Bureau of Information on all questions relating to the treatment and training of disabled soldiers should be created, and that pending the formation of such a bureau, all such information should be forwarded to the French Statistical Office in Paris.

APPENDIX J

*Recommendations of the Pensions and Claims Board, C. E. F., as to Pensions and Other Matters Pertaining to the Return of Members of the Canadian Militia from Active Service to Civil Life.*²¹

The Pensions and Claims Board now sitting at Folkestone, England, has for the past five months, been engaged in investigating the cases of, and recommending pensions for, disabled Canadian soldiers, and their dependents. It has also been making a careful study of the subject of Pensions, both as a matter by itself, and in relation to the larger problem of the care of, and provision for, the Canadian soldier on his return to civil life. This study has involved exhaustive research work as to the pension laws and provisions of the principal European nations and of the United States of America.

From this study and from the knowledge gained by practical experience of work done under the Pension provision of the Canadian Militia Pay and Allowance Regulations, 1914, now in force, this Board has formed certain definite opinions which it now respectfully begs to submit for your consideration in the hope that they may be of some assistance to those in Canada who are engaged in the effort to solve

²¹ Canadian pensions legislation is still in process of formation.

these difficult and all-important problems. Throughout this report, whenever it has appeared necessary to support a recommendation, a short explanatory note has been appended to the paragraph containing the recommendation.

On the matter of pensions proper, we beg to offer the following suggestions, which are intended to be applicable to all members of the Canadian Militia on Active Service, whether home or foreign, including Chaplains, members of the C. A. M. C., nursing sisters, and, speaking generally, all non-combatant as well as all combatant members.

1. All pensions or benefits awarded to members of the Canadian Militia disabled on Active Service, and to their dependents, should be paid from the public funds of the Dominion of Canada.

N. B. Since the disabilities were incurred in the service of the Canadian nation as a whole, the funds necessary for pensions and other benefits should be a charge upon the Federal Government and not upon Provincial or other Governments, or upon private benevolence.

2. The award of pensions should be under the exclusive jurisdiction of a Central Pensions Board, which, above everything, should be removed from all possibility of political influence. Its members should be appointed by the Governor-General-in-Council for life, and be removable only for cause.

N. B. The experience of other nations has proved the undesirability of allowing a pensioning body to be so constituted that its policy can be directed by succeeding political parties, who have used promises of increased pensions for party purposes.

3. The decisions of that Board should be final and it should be responsible only to Parliament.

4. No pensionable member of the Canadian Militia should be retired or discharged from Active Service until after receiving the first payment on account of pension.

N. B. In many cases hardship has occurred when discharge has taken place and pay has ceased, sometimes, long before the first payment of pension has been made.

5. No pension should be capable of being assigned, charged, attached, or commuted.

N. B. A pension should be the inalienable property of the person to whom it is granted, for the protection both of the grantee and of the State. Should the grantee be allowed to dissipate it, public sentiment would probably necessitate a further provision by the State, or failing that, the grantee would almost certainly become a charge upon private charity.

6. The pensions provided for the Permanent Force by the Militia Pensions Act or for other governmental services, and depending upon length of service should be awarded separately and without reference to such pensions as members of that Force may become entitled to as the result of Active Service.

N. B. The pensions provided for members of the Permanent Force are contributory and form part of the contract of enlistment in that force, which must be fulfilled.

7. All pensions to members of the Canadian Militia disabled on Active Service should be awarded in direct proportion to the impairment of capacity for earning a livelihood in the general market for untrained labor. Unreasonable refusal to accept an operation which would result in a lessening of a disability should be ground for a corresponding reduction of pensions. Decision as to unreasonableness to rest with D. M. S.

N. B. Men enlisting for Active Service in the Canadian Militia as privates bring to the service of their country a healthy body. The previous occupation of the recruit is not recognized as having any reference to the service which the soldier could give the State, unless it secures for him a higher rank than that of private, in which case the return made to him by the State in pay and pension is proportionately increased. The private soldier then is looked upon as offering merely a healthy mind and body to the public service. For practical purposes the market for healthy bodies is said to be the 'general market for untrained labor'. Upon leaving the Service any physical or mental disability which may have been suffered is estimated according to the extent by which it reduces the capacity of the individual concerned for earning a livelihood in the general market for untrained labor. It is to be noted that it is the impairment of capacity for earning, without reference to the former occupation or income, which is to be determined.

8. A Disability Table should be carefully prepared, so as to provide an accurate and uniform basis for the guidance of Medical Boards and

others, in determining the degree of incapacity for performing untrained labor.

N. B. It is the duty of medical officers to establish the physical condition of soldiers at their entrance to the public service, and at their exit from it. In order to assist them in estimating the extent to which a given disability reduces the capacity of an individual to earn his livelihood in the general labor market a Disability Table largely based upon the experience gained in the administration of workmen's compensation acts in Europe and elsewhere, should be prepared. By employing such a table as a guide, medical officers will ensure accuracy and uniformity in their findings, and as a result, will help to secure equity in the amounts of pensions granted. Such a table is now being prepared by this Board and will be completed shortly (see Appendix F-37; pp. 73-74).

9. A disabled member of the Canadian Militia should be pensionable to the extent to which the disability is due to Active Service either in the Canadian Force, or in any other Force to which the member is seconded, whether such disability is directly and entirely due to such Service, or has only been aggravated thereby.

N. B. Under Canadian social organizations, private citizens must bear for themselves the risks of disabling illness or accident to which all human beings are subject. It is but fair, when a private citizen is engaged on public service that, while he continues to bear his own risks, all risks resulting directly from disabilities which he incurs as a result of his public service, should be borne by the nation of which he is a member, and for which he has served.

10. Until the disability has been relieved and reconstituted, as far as possible, by treatment, functional re-education, and artificial appliances, and the incapacity has thus been brought to a state of finality, only a temporary pension should be granted, renewable at periods of from six to twelve months. No disability, to be called insurable unless it consists of a mutilation or suppression of an organ; after ten years France considers a disability to be permanent. At any time with increase of disability, a claim may be made for readjustment of pension.

11. The educational authorities should be obliged to report every case in which they have reason to believe that a child's pension is not being fairly and properly expended for the benefit of the child.

12. No deserter should be pensionable.

13. The State should, if and when necessary, relieve disabled pensioners from any extra cost, which they might otherwise incur by reason of their disability, in respect of Government Annuities and Life and Accident Insurance for limited amounts.

N. B. A disabled man is at a disadvantage in buying insurance or an annuity of any sort for two reasons: first, because his disability may reduce his expectation of life, or make him specially liable to accident, and secondly, because the result of an additional accident may increase the resulting total disability out of all proportion to the effect immediately resulting from the second injury; for example, a man blind in one eye is but slightly disabled; if he loses his other eye, he immediately becomes totally disabled, although the second accident was only equal in its effect to the first, since it was only the direct cause of the loss of one eye. These are distinct disadvantages and, in so far as they result from disabilities incurred in the public service, their cost should be borne by the State. This does not, however, imply that the State may be called upon to assist disabled men in obtaining insurance for indefinite amounts. The amount of insurance for which State aid can be obtained should be in proportion to the pension awarded to the individual concerned, and should be limited as may be determined by the pension authorities.

14. Rules of procedure, both for officials (lay and medical) and for the public, as to all matters pertaining to the administration of the pension provisions and including other advantages offered returning soldiers, should be prepared and published in convenient form, to facilitate the work of the Pensions Board.

15. The present pension provisions as contained in paragraphs 641 to 648 inclusive, of the Canadian Militia Pay and Allowance Regulations, 1914, are, it is thought, in some respects inadequate and unsatisfactory, and the following are recommended in substitution for them, as covering the additions and amendments which seem to be most essential.

Disabled Member of Canadian Militia shall be Pensionable as follows:

(a) A member of the Canadian Militia recommended for retirement or discharge on account of disability, whether wholly due to, or only aggravated by, Active Service, shall be pensionable, to the extent to which

such disability is due to Active Service, in direct proportion to the impairment of capacity for earning a livelihood in the general market for untrained labor, at the following rates:

<i>Rank</i>	<i>Rate per Annum</i>
1. Rank and File	\$360
2. Corporal	384
3. Sergeant	432
4. Squadron, Battery or Company Sergeant Major	} 468
Squadron, Battery or Quarter Master Sergeant	
Color Sergeant	
Staff Sergeant	
5. Regimental Sergeant Major, not Warrant Officer	} 528
Master Gunner, not Warrant Officer	
Regimental Quarter Master Sergeant	
6. Warrant Officer	576
7. Lieutenant	660
8. Captain	816
9. Major	960
10. Lieutenant Colonel	1,200
11. Colonel	1,440
12. Brigadier-General	2,100

N. B. These rates are arrived at by adding \$96 per annum to the pension now payable to each rank, up to and including that of Captain. It is also proposed to make the rate for a Corporal a little higher than that for the Rank and File, also to increase the rate for a Lieutenant beyond that for a Warrant Officer.

The proposed rates are based upon the opinion that the present provision for the Rank and File is inadequate. In case of total incapacitation the pension should be sufficient to provide a decent livelihood. For that purpose not less than \$360 per annum is thought necessary. If the rate for the Rank and File is increased, it is necessary to increase the rates for the other ranks below that of Major, in order to preserve the present distinction between them, but it does not appear necessary to increase those rates in exact proportion to the increase for the Rank and File; nor to increase the rates for the higher ranks at all.

(b) The proportion of the above rates to be paid in each case shall be determined, according to the percentage of impairment of capacity, under the following degrees:

<i>Degrees</i>	<i>Per Cent.</i>
First Degree	100
Second Degree	80
Third Degree	60
Fourth Degree	40
Fifth Degree	20
Sixth Degree	Under 20

N. B. This does away with the present distinction between those rendered incapable in action, etc., and those rendered incapable in training, etc.

It is submitted that this distinction should not be made, as, after enlistment, all are subject to military discipline, must go where they are sent, and do what they are told, and, when disabled, whether while training or fighting, should receive the same treatment.

The number of degrees awardable has been increased to six, as it is clear that, unless a sufficient number is provided, individuals of widely varying incapacity must receive the same pension, and dissatisfaction is sure to result.

Gratuities in lieu of Pensions:

(c) Where the disability is less than ten per cent., a gratuity of not more than \$100 may, at the discretion of the Pensions Board, be paid in lieu of pension.

N. B. It frequently happens that an individual has received some slight injury insufficient to entitle him to a pension which may be renewed, but sufficient to give him a just claim for some consideration. The payment of a gratuity provides a convenient method of finally settling the claim in such a case.

Attendants:

(d) Where the disability is great enough to require the *constant* services of an attendant, the rates under the First Degree may be increased by one-third, and where the disability is great enough to require the *occasional* services of an attendant, the rates under the First and Second Degrees may be increased by one-sixth.

(e) A disabled member of the Canadian Militia pensionable under the first, second or third degrees of incapacity, may, in addition to the personal pension as above provided, draw:

1. For his wife, if any, or so soon as he marries, at the rate of one-third of his personal pension.
2. For a child or children, if any of pensionable age, or so soon as born; and for a step-child or step-children, and for an illegitimate child or illegitimate children, and for a child or children, to whom such member stood *in loco parentis*, whether related to such member by consanguinity or not, if any of pensionable age dependent on such member at the time of joining for Active Service, at the rates of:

One-sixth of the personal pension for the oldest child.

One-eighth of the personal pension for the second child.

One-tenth of the personal pension for the third and each other child.

3. If he is unmarried or a widower, for a woman who has been receiving separation allowance, or subsistence allowance, or assigned pay, as if a wife, and is still entirely dependent on him, at the rate of one-third of his personal pension.
4. If the father of, or the member standing *in loco parentis* to, the child or children provided for in sub-section (2) is not drawing a pension for a wife or for a woman such as sub-section (3) provides for, he may, until he marries or re-marries, draw for the only or eldest child of pensionable age a further pension at the rate of one-sixth of his personal pension.
5. For a parent or parents, or for any person or persons, who, at the time such member joined the Canadian Militia for Active Service, stood *in loco parentis* to such member; according to the proved degree or degrees of dependency, a person with an income of less than \$500 surely is dependent, either existent or when it may arise, at a rate, or rates, not exceeding, in the whole, one-third of the personal pension.
6. At the discretion of the Pensions Board, the pension, which a member of the Canadian Militia disabled on Active Service may draw for any of the aforesaid dependents, may be increased, lessened or discontinued according as the dependency of such dependent increases, lessens or ceases; provided that it shall not for any dependent exceed the amount which may be drawn as above provided for such dependent; and provided that the maximum amount for which any such member shall be pensionable, both personally and for all dependents, including the increase for an attendant, if any, shall not, in the whole, exceed twice the amount of the personal pension.
7. Should any member of the Canadian Militia disabled on Active Service be, or become, in the opinion of the Pensions Board, unworthy or unfit to receive it, the pension, or any part thereof, may, at any time, at the discretion of the Pensions Board, be withheld, or discontinued, or paid to the wife or husband, or to any of the dependents of such member, or to a legally appointed guardian for the benefit of the person or persons for whom such member would otherwise have received it.
8. In all cases the claim for a personal pension must be made within one year of the date of the appearance of the disability upon which the claim is based, unless special reasons are shown which, in the opinion of the Pensions Board, are sufficiently strong to justify an exception.

N. B. In civil life a man may support whom he will and can, provided, however, that he must first fulfill his obligations to his immediate family. The pension awarded to a disabled man, on account of his incapacity

tion, is part of the attempt made by the State to rehabilitate him so that he may compete with his fellow citizens and suffer through war (no more than all of them must do.) A pension will be more likely to accomplish this object in the lower degrees of incapacity than in the higher. Therefore, a pensioner who suffers from an incapacity of sixty per cent. or over, should, besides his personal pension, receive the other pensions provided for as above. He should be pensionable for a wife and children, not only present, but future, in order to encourage him to marry and have children; also for step-children, illegitimate children and children to whom he stood *in loco parentis*, of pensionable age who were dependent on him when he joined for Active Service. If his 'unmarried wife' has been receiving separation allowance, subsistence allowance, or assigned pay, and is still entirely dependent on him, it is logical that he should be pensionable for her. He should also be pensionable for his parents, or for those who at the time he joined for Active Service, stood in the place of his parents, according to proved dependency whether present or future. Obviously it is necessary to provide that the pension he may draw on account of dependents may be varied or discontinued according as the dependency of each dependent varies or ceases. The maximum awardable to any one pensioner should, it is thought, be limited to twice his personal pension, amounting for the Rank and File to \$720 per annum, which is considered to be the average amount which a sound man may earn per year in the general labor market of Canada. It is desirable to insist that a claim for a personal pension should be made as soon as possible after a disability appears, as it is extremely difficult for medical opinion to decide upon the cause of disabilities which are not examined soon after their origin.

(f) When a member of the Canadian Militia has been killed in action, or has died from injuries received or illness contracted while on Active Service, the dependents of such member shall be pensionable as follows:

1. A widow, at the same rate at which the deceased, if alive, would have been personally pensionable, under the First Degree of disability.

Should she re-marry (or take the veil?), her pension shall cease, but she may, at the discretion of the Pensions Board, be granted a gratuity to an amount not exceeding the equivalent of two-years' pension.

2. A child or children, and a step-child or step-children, and an illegitimate child or illegitimate children, and a child or children to whom the deceased stood *in loco parentis*, whether related to the deceased by consanguinity or not, if any of pensionable age, at the same rate or rates at which the deceased, if alive,

would have drawn for such child or children, under the First Degree of disability.

3. A child or children, such as provided for by the last preceding sub-section, if an orphan or orphans of pensionable age, at double the rate or rates at which the deceased, if alive, would have drawn for such child or children, under the First Degree of disability; and such pension or pensions shall be paid to legally appointed guardians for the benefit of such child or children.
4. If the deceased was at his death unmarried, or a widower, a pension may be granted to a woman if she was entirely dependent on him and had been receiving separation allowance, or subsistence allowance, or assigned pay, as if a wife, or for whom he had been drawing a pension, as for a wife, at the rate at which he would, if alive, have been personally pensionable, under the First Degree of disability. Should she marry, her pension shall cease, but she may, at the discretion of the Pensions Board, be granted a gratuity to an amount not exceeding the equivalent of one year's pension.
5. A parent or parents, or any person or persons who, at the time the deceased joined the Canadian Militia for Active Service, stood *in loco parentis* to the deceased, according to the proved degree of dependency, either existent or when it may arise, at a rate or rates not exceeding, in the whole, the rate at which the deceased would, if alive, have been personally pensionable, under the First Degree of disability.
6. At the discretion of the Pensions Board, the pension of any of the aforesaid dependents of the deceased may be increased, lessened or discontinued, according as the dependency of such dependent, increases, lessens or ceases; provided that it shall not, for any dependent, exceed the amount above provided for such dependent, and provided that the maximum amount, for which all the dependents of the deceased shall be pensionable, shall not, in the whole, exceed one and one-half times the amount for which the deceased would, if alive, have been personally pensionable, under the First Degree of disability.
7. Whenever a reduction of pensions is necessary, in order to bring the total amount of the pensions of all dependents of the deceased to the aforesaid maximum, the pension or pensions of the dependent or dependents provided for by sub-section (5) shall first be reduced *pro rata*, or cancelled, as may be necessary, and if, and only when, a further reduction is necessary, the pensions of children shall be reduced *pro rata* as may be necessary.

8. Should any dependent or dependents of the deceased, in the opinion of the Pensions Board, be, or become, unworthy or unfit to receive a pension or pensions, such pension or pensions may at any time, at the discretion of the Pensions Board, be withheld, or discontinued, or paid to a legally appointed guardian for the benefit of such dependent or dependents.
9. All pensions payable to dependents of the deceased shall be payable in advance and shall take effect from the day following that on which the deceased dies, and a gratuity equivalent to two months' pension shall in every case be added to, and paid with, the first payment.
 - (g) All pensions may be paid monthly in advance.
 - (h) Neither pension nor gratuity shall be paid on account of, or to, any child over sixteen years of age, if a boy, or over seventeen years of age, if a girl, unless the Pensions Board is satisfied either:

1. That the child is, owing to mental or physical infirmity, incapable of earning a livelihood; in which case the pension may, at the discretion of the Pensions Board, be continued until the child is twenty-one years of age, after which a subsidy of equal amount, in lieu of the pension, may, at the discretion of the Pensions Board, be paid to an approved institution, for the care of the child, so long as the child remains an inmate thereof, or:
2. That the child is in good faith following a definite course of instruction in an approved secondary school, technical school, or university; in which case the pension may, at the discretion of the Pensions Board, be paid until the child is twenty-one years of age.

[Advisability of establishing business for soldiers' children or dependents.]

16. In addition to the award of pensions the methods adopted for the return of members of the Canadian Militia from active service to civil life should secure the following results:

- (a) Reduction of physical disability to a permanent minimum by appropriate medical treatment.
- (b) Instruction in various suitable occupations in order that they may become employable and self-supporting.
- (c) Assistance to find employment or occupation.

17. The responsibility for the fulfilment of these provisions should rest with the Dominion Government, who should provide the medical service, hospital treatment, and educational and

other facilities necessary for their accomplishment.

18. To secure prompt, adequate and coordinated action, the direction of all measures adopted for the return of members of the Canadian Militia to civil life should be placed under the general direction of a central administrative body.

19. The composition of that body should be such as to remove it from all possibility of its being influenced by party politics. It should be composed of not more than five members, who should be chosen for their outstanding ability and capacity for administration. They should be adequately paid for their services, and if necessary should devote their whole time to the work.

20. The measures to be adopted by such a body should be framed with the fullest recognition that Canada has an obligation to do everything necessary to rehabilitate all members of her Militia who have incurred bodily or mental disabilities resulting from Active Service, so that, by reason of such disabilities, they shall suffer no more than every Canadian must do.

In establishing the facts definite machinery for doing so must be stated by which the pension ability of dependents will be decided; the body responsible for the administration of pensions should be enabled to make full use of local authorities, and, perhaps, of local tribunals. Whenever possible the applicant for pension should appear before it and give evidence under oath. Application for pensions to be handled quickly. No discharge till first payment of pension—separation allowances to continue till it be paid.

Disability Table.

The following table, with its proposed instructions to Medical Officers is capable of giving useful service until a more complete table is adopted; in some respects it requires elaboration. The authorities consulted in its compilation are given in the following list. Of them, No. 4, the 'Guide-Barême', is the most important. Golebiewski's book, No. 8, 'Diseases caused by Accidents', and No. 5, Ollive and

Meignen's 'Traité Médico-Légal des Accidents du Travail' are useful works of reference. They are constantly employed in the estimation of injuries in connection with the operation of Workmen's Compensation Acts.

(For France, see Appendix G-62, G-63.)

(For Canada, see Appendix G-64.)

1. Brouardel; Les Blessures et les Accidents du Travail. J. B. Baillièrre et Fils, 19, rue Hautefeuille, Paris. 1903.
2. Brouardel; Les Accidents du Travail—Guide du Médecin. J. B. Baillièrre et Fils, 19, rue Hautefeuille, Paris. 1903.
3. Ch. Remy; L'Évaluation des Incapacités Permanentes Bassée sur la Physiologie des Fonctions Ouvrières des Diverses Parties du Corps. Vigot Frères, Éditeurs, 23, place de l'École de Médecine, Paris. 1906.
4. Guide-Bâreème des Invalidités. République Française. Ministère de la Guerre. H. Charles Lavauzelle, 124, boulevard Saint-Germain, Paris. 1915.
5. Ollive and Le Meignen; Traité Médico-Légal des Accidents du Travail. J. B. Baillièrre et Fils, 19, rue Hauteville, Paris.
6. Hermann Engel; Die Beurteilung von Anfallsfolgen nach der Reichsversicherungsordnung; ein Lehrbuch für Ärzte. Urban und Schwarzenberg, Berlin. 1913.
7. Pearce Bailey; Diseases of the Nervous system resulting from accident and injury. Sidney Appleton, London, 1906.
8. Ed. Golebiewski; Diseases caused by Accidents. W. B. Saunders & Co., Philadelphia. 1900.
9. Instructions to Examining Surgeons. Government Printing Office, Washington. 1913.
10. Wyatt Johnston; On the Estimation of Disability and Disease due to Injury. The Montreal Medical Journal, page 181, No. 29. April, 1900.
11. Bulletin No. 126 of the U. S. Bureau of Labor Statistics. Workmen's Compensation Laws of the United States and Foreign Countries. Government Printing Office, Washington. 1914.
12. Fergue et Jeanbrau. Masson & Cie. 1913.

Medical Boards' Instructions to Medical Officers

Medical Officers are instructed that, in answering question 24 of Army Form B 179, Canada (Appendix F-39), the extent of a soldier's disability is to be estimated in terms of his incapacity for earning a livelihood in the general market for untrained labor.

The accompanying table is provided to assist Medical Officers in estimating the extent of the incapacity resulting from various disabilities. It will be valuable in assisting Medical Officers to arrive at reasonable and uniform estimates.

In using the table, it is to be remembered that the disability resulting from complete loss of function of an organ is the same as the disability resulting from the loss of the organ itself.

A disability is to be estimated at a higher rate when the dominant limb of a pair is affected; for example, a right arm in a right-handed man, or a left arm in a left-handed man; as a general rule the maximum at which a disability may be estimated is stated in the table.

Whenever it is possible to do so, Medical Officers will accompany their estimate of the extent of the total or partial disability by an estimation of the period for which a total or partial disability may be expected to persist.

The amount of time required for the proper prosecution of treatment is to be considered in estimating the incapacity resulting from a temporary disability.

Where more than one disability exists in an individual, the total disability resulting is not to be arrived at by a simple addition of the percentages at which each individual disability is assessed, but by an estimation of the total disability existing in the person concerned, and, by an inspection of the table, of the extent of the incapacity which it entails.

Since this table is a small one, many disabilities are not mentioned in it. When it becomes necessary to estimate the extent of the incapacity resulting from a disability not mentioned in the table, Medical Officers will do so by comparing the disability in question with one of equal gravity which is mentioned in the table, *e. g.*:

The disability caused by the severing of the musculo-spiral nerve, resulting in wrist drop, may be estimated as being approximately equal to the disability resulting from an ankylosis of the elbow in a bad position, and, therefore, as being equivalent to a disability of fifty per cent.

It must be clearly understood that the figures given in the table are only for the guidance of Medical Officers, and that they may be reasonably increased, or decreased, in accordance with

conditions which may complicate the disability under consideration, *e. g.*:

The incapacity resulting from an ankylosis complicated by pain, must be rated at a higher figure than that resulting from a similar injury unaccompanied by pain.

There here follows the proposed Disability Table for the use of medical officers of the Canadian Expeditionary Force:

<i>Head</i>	<i>per cent.</i>
Epilepsy, fits occurring several times per day	100
Epilepsy, fits occurring every two or three weeks	50
Insanity, total	100
Insanity, partial (Mental detriment or other appropriate phrase)	80
Loss of portion of cranium	20-30
Loss of both eyes	100
Loss of one eye	33
Loss of nose	20-30
Total loss of hearing	50
Deafness of one ear	15
Loss of tongue	60
Total paralysis of facial nerve	20
Almost total loss of teeth	20

<i>Upper Extremities</i>	<i>per cent.</i>
Loss of middle, or ring, or little finger	10
Loss of index finger	15
Loss of thumb (with metacarpal bone)	30
Loss of all fingers except one, on both hands	100
Ankylosis of the wrist, in good position	20
Ankylosis of the wrist, in bad position	40
Loss of one hand	70
Loss of both hands	100

<i>Upper Extremities Continued</i>	<i>per cent.</i>
Ankylosis of an elbow in good position	30
Ankylosis of an elbow in bad position	60
False joint at an elbow	50
Loss of one arm, below elbow	70
Loss of one arm, above elbow	75
Loss of both arms	100
Disarticulation at the shoulder	80
Ankylosis of the shoulder joint	50
False joint at a shoulder	50

<i>Lower Extremities</i>	<i>per cent.</i>
Loss of any toe other than big toe	5
Loss of big toe	10
Ankylosis of big toe, in good position	10
Ankylosis of big toe, in bad position	20
Loss of one foot	60
Loss of both feet	100
Ankylosis of ankle, in good position	20
Ankylosis of ankle, in bad position	50
Loss of leg	60
Loss of thigh at upper third	70
Ankylosis of knee joint, in good position	30
Ankylosis of knee, in bad position	60
Fracture of thigh with slight (one-inch) shortening	10
Disarticulation at the hip joint	80

<i>Miscellaneous</i>	<i>per cent.</i>
Loss of any two limbs	100
Ventral hernia	15
Inguinal hernia	10-30
Tuberculosis, in early stages	50
Tuberculosis, incurable	100
Chronic bronchitis	30
Chronic cystitis	70

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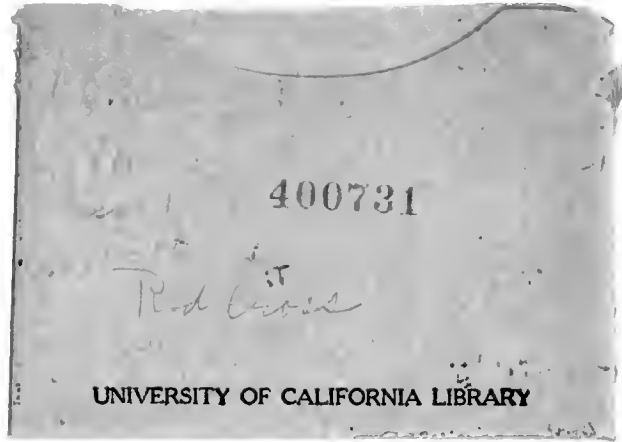
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