



Physical Restoration of Our War Heroes

Methods Employed by the Invalided Soldiers' Commission. Whereby Patients are Led to Cure Themselves

THE nation will ultimately win in this great struggle which is best able to use her men again. Authorities throughout the fighting world have concurred in

this prediction, and in pre-paration for the reconstruction period with its fight for trade and industrial upremacy. The belligerent countries are already engaged in the great work of rehabilitation rehabilitation.

rehabilitation. Rehabilitation is a many-sided problem, but the phase which dwarfs all others and demands primary consideration is the physical restoration of the war cripples. Disabilities must be reduced to mini-mum. Surgery and medical skill have done their best for many soldiers and left skill have done their best for many soldiers and left them still sadly incapaci-tated, facing a lifelong dependence upon relatives or the uncertain lot of a public charge. To meet the needs of these men, medical experts and psycho-logists have evolved a new science, functional re-education, which even in its infancy has achieved reinfancy has achieved re-sults which have aroused the "doubting Thomases" to controversy.

to controversy. Hart House, turned over to Dr. Edward A. Bott of University of Toronto by the Massey estate for the development of this work, has become the "House of Hope" to scores of war-wrecked soldiers suffering from paralysis and other functional difficulties attendant upon wounds which destroyed muscles or nerves. Here lethargy and despair are routed and the elixir of new life injected. From the discards upon whom surgeons have exhaust-ed their skill and other practitioners puzzled in vain, the Hart House workers are raising new men. Some men come

Some men come from the hospitals in Toronto to be given special treatment pre-scribed by the Medical Officer in Medical Officer in charge, others are sent to see what one of these new phases of post-operative treat-ment may be able to do for them do for them. It is a recognized fact that many men who under the usual course

of treatment would be invalids

for many months following operations, and in some cases might never fully re-

and in some cases might never fully re-cover, are being restored in a few weeks. Departments of mechano-therapy, electro-therapy, hydro-therapy, remedial gymnastics, games and massage have been organized, each contributing to the suc-cess of the institution in treating the mul-titude of injuries peculiar to war wounds. Every man is a problem in himself. He may have received a gunshot wound which did exactly the same damage as in a pre-vious case, but affecting him nervously in

did exactly the same damage as in a pre-vious case, but affecting him nervously in such a different way, that a whole new process must be evolved to restore him. The work at Hart House, inaugurated last year to invent and perfect mechanical devices which would give the proper move-ment to particular muscles, has reached the point where the devices answer the needs of most cases; but to supplement the curative effect of the machines, men usually must be mentally renovated as well. usually must be mentally renovated as well. This becomes an individual problem.

All the mechano-therapy apparatus at Hart House by which exercise is directly applied to any muscle or set of muscles in the body, is fitted with metrical devices which record the daily improvement and stimulate the patient to greater endeavor and continued interest. The most simple and continued interest. The most simple devices, such as finger treadmills, rolling-pins and pulley weights have been employed in the arm room, and in the department for leg treatments, bicycles, bed sorings, and little hurdles are just as effective as the complicated Zandar machines.

The ability of a firmly established belief in the impotence of an arm to cause com-plete paralysis of the member when there plete paralysis of the member when there is no physical reason why it should not function properly is proven in several cases, and the work of the Hart House experts in such instances is to discover the basis of the belief and convince the patient of his error. Long months of convalescence from bad wounds have imbedded the idea in the minds of some patients that they cannot use the members properly, and to meet this need games properly, and to meet this need games hat been found very efficacious. In the heat of competition a man filled with a



Below—Sliding pedals, whereby a good leg forces movements of weaker one.

great desire to make a certain play does exactly what he believed he could not do, and from that time on he recovers rapidly. Games are also curative in that they sup-ply needed exercise in an interesting form. They are carefully supervised, and come under the direction of Capt. H. R. Smith, the medical action of the second sec

the medical offi-cer who examines every man who comes to Hart House for treatment.

THE games have all been adapted for reme-dial use and are played under the supervision of physical training sergeants who have been have been trained in remedial gymnastics for just this sort of treatment. The

Finger treadmill for impaired muscular action

remedial gymna-sium is one of the most interesting depart-ments of the institution, and one which appeals particularly to the men. Here, the old parallel bars, horizontals, the punching bag, the "horses" and other familiar gymnasium appearatus are shorizontals. the honors with newly invented pieces of equipment in the work of restoration. The wands, dumb-bells, and Indian clubs are swung to gramaphone music, and the patients are

the patients are given folk dancing-all to a purpose, even though the gay good hu-mor of the men under treatment might belie the altogether scientific basis for every movement. This treatment, as simple as health itself, is working miracles.

Apparatus for wrist flexion.

There are a

series of game rooms in which shuttle-cock badminton, squash racquets, basket ball, hand ball, and tether tennis provide the proper natural exercise demanded for various cases, and stimulate the interest of the men in their treatment. Here they use the added strength gained day by day, and lost initiative is restored by the competition. Men of similar disability are pitted against each other, and each is stimulated by the accomplishments of the other.

A special department under Capt. Smith is devoted to the treatment of amputation cases and games the like of which the beautiful quarters designed to house the 'Varsity sports and student activities will never see again, are played by men minus arms and legs.

A Bed spring the complete when the transpond to be a transpond to the artificial limb, in a transpond to the artificial limb, in a transpond to the problem of retaining "the stump," or remaining portion of the amputated limb, in its natural strength until it is ready to be fitted with an artificial limb. Inaction causes the stump to waste and lose its strength, and so the muscles are unable to control the artificial member when it is attached. Special appliances have been devised at Hart House by which a man may play tennis, billiards, squash racquets, and tether tennis by means of a harness arrangement and clamp, which fastens the tennis racquet or specially constructed billiard cue to the patient's stump. Leg amputations play ten push by another device with which the patient swings the ball. Through such treation of the time usually required, and with no disconfor.
Textensions of the work of Hart House wide the ydro-therapy department. Electro-therapy and massage, which are wider to specially constructed on at Hart House wider the value to support the spatient's stump. Leg amputations play ten pis by another device with which has in the treatment of orthopaedic cases, will also be extended.
That the work carried on at Hart House wider the direction of a matron specially for the direction of a matron specially trained in the work, has been a big factor in the success of the treatment, is the is clous for the men, and a second prevens visit sections for the men, and a second prevens visit sections for the men, and a second prevens visit sections for the men, and a second prevens success and failure. Functional education is primarily a method by which a matron specially the secure so the treatment.

work is tedious for the men, and a second person's interest is often the turning point between success and failure. Functional education is primarily a method by which a patient is led to cure himself.

Spirit of the Maimed

THE sight of so many missing arms and legs and the early efforts at manipu-lating the substitute ones, is distressing, to say the least. The cheerfulness of these man is simply unbelievable. Sympathy is "Aw, we don't want sympathy," one young chap strug-gling bravely with the job of "break-ing in the second strug-gling bravely with the job of "break-ing ing bravely with the job of "break-

ing in "his new leg, remarked to visitor recently-"My Peggy" (the nickname given their artificial legs) "is coming along fine, and she'll soon be as good as the one I left overseas.

"Why, I might have been blinded

or shell-shocked, or got tuberculosis. Bill, here," pointing to his Highland companion with an empty sleeve which he was twirling and an unturned to the second tried and an upturned trouser leg, "h to hog the whole bloomin' shell." 'he tried

"Come on over and look at our 'crocks."" (another pet name for the artificial legs) one hollered across the hall to a chum.

A suggestion of humor hangs with the sign at the entrance to each ward: "Ladies will kindly arrange to stay out after 9 p.m.