

WAYS AND MEANS OF CAMPAIGNING.

THE helplessness of our soldiers, when they are thrown for awhile upon their own resources, has been so frequently insisted upon and deplored in the Evidence taken before the Sebastopol Committee, and in speeches in both Houses of Parliament that, while it becomes impossible to doubt it as a fact, there arises a serious question whether, and in what way, we should attempt to remedy it.

Now, as matters bearing upon this question have been my special study in extended travel, so far as to have induced me to write upon them*, quite irrespectively of the present war, I thought myself justified in communicating to the military authorities a scheme that I had matured to meet the present occasion, and, whilst my proposal remains under consideration, I embrace the opportunity of putting what had been scattered over many pages of writing, at different times, into the present condensed and legible form. At the same time, I must observe, that I send this Circular as a private communication, and to no large number of persons.

To proceed:—I have offered my gratuitous services in organising a **SCHOOL OF INSTRUCTION** in such of the “Ways and Means of Campaigning” as fall under the following heads:—

1st. The best of those **MAKESHIFTS AND CONTRIVANCES** which those people adopt who have been thrown on their resources in all parts of the world.

2nd. The elements of those **HANDICRAFTS** which experience has shewn to be the most useful in those circumstances.

My wish is to reduce the teaching of the matters to a regular system. I am quite convinced that it can be done, and that an interesting and very useful course in them could be afforded to the army generally, at a very small cost, and without clashing with their regular duties. I seek for an opportunity of proving this practically. If I succeeded in doing so to the satisfaction of our military rulers, they might extend the system as widely as they pleased, and my classes would have instructed a number of persons who would afterwards be themselves qualified to teach. As yet the matter is a novelty; no one can point to experience and say:—“These things are the best to be taught—this the best way of teaching them—such is the time required for a good practical instruction—such the likelihood of the course being a popular one.” But if the experiment be once set on foot, even so short a

* “Art of Travel: or, Shifts and Contrivances available in Wild Countries.” By Francis Galton, author of “Explorings in South Africa.” Published by Murray, 1855.

period as two months, would go far towards deciding these points, and affording sound ground for future plannings.

The scheme I would suggest, is that of beginning at Aldershott, with classes of Officers who might volunteer to learn,—and I believe that they would volunteer,—and at the same time to offer facilities to others on duty there, to employ a few hours of their leisure time in attending them.

All things that were taught would be practised under the circumstances of a bivouac; that is to say, the Learners would sit on low stools, or on the ground, and work as much as possible without tables or benches, and this, as we all know, requires a very different description of work to that which English mechanics adopt. Every endeavour would be made to give a thoroughly practical, and not a far fetched and fanciful character to the course.

The **MAKESHIFTS AND CONTRIVANCES** would be explained by me in Lectures, aided by Demonstrations and Diagrams, and during frequent Field Excursions. In this division of the course I should follow part of the very same ground as that which I have gone over in the “Art of Travel;” those subjects being omitted which are special to the wants of a private traveller. That book contains on the whole twenty-five chapters; it will, perhaps, suffice to shew my present intention if I mention the subjects treated upon in the first three of them,—they are as follows:—

WATER.—Where to look for water—Signs of its being near at hand—Occasional supplies from rain, dew, &c.—To purify water that is muddy, putrid, or salt—To dig wells without spades, &c.—To water cattle from wells—To make water vessels.

FIRE.—Ways of obtaining a spark—Different kinds of tinder—To kindle a spark into a flame—Different kinds of fuel and their relative value (manure, bones, &c.)—Economy of camp fires.

BIVOUAC.—Where to seek for shelter—Mattresses, blankets, and their substitutes—Different ways of bivouacking when without tents or huts, &c., &c.

The **HANDICRAFTS** would be taught in five or six Classes, all under my superintendence, but each immediately instructed by handy and respectable Workmen.

Their method would be this: each of them would have on view a Collection of such different articles,—or models or pictures of them,—as fall within their several trades, and as soldiers, who are thrown on their own resources, have most frequently occasion to make.

They would in part consist of those very tools and appliances that the Learners are taught to work with, and in part of ingenious and useful makeshifts. They would in all cases be made of precisely that description of rough, strong, and simple workmanship, that I should expect the Learners to become somewhat proficient in. I attach great importance to the judicious selection of these objects, and have prepared lists of them, which I have been long collecting, and would gladly annex; but without sketches and explanatory descriptions it is impossible for me to convey

a just notion of what I mean. I will, therefore, mention a few things only as a sample of my intention; they belong to the Carpenters' Class, and to the simpler kind of works practised in it.

Handles for awls and other tools—Hand saw frame—Stand for grindstone with makeshift crank and treadle—Ladders—Plumbline—Carpenter's square—Wooden drag shoe—Swivel for tether rope—Chair frame (for twisted rush bottoms)—Bedstead frame—Three legged stool—Camp stool—Hanging shelves—Boxes—Pack saddle trees, &c., &c.

(The ways of seasoning wood roughly—of working it by fire for want of tools—All kinds of substitutes for nails, &c., &c., would be shewn.)

The Learners would be set to work, some at one thing in the Collection, some at another; and by comparing and talking over what they severally were employed about they would insensibly become familiar with the details of the whole. They would learn the object and uses of each thing in it, the time required by moderately skilled hands to make them, &c. &c. This would be very valuable and practical knowledge.

The **CLASSES** would be as follows:—

1. Carpentry and Joining—Taught by a person like a Ship's Carpenter.
 2. Smith's work, both tin and iron.—Taught by an Armourer.
 3. Use of Awl, Sail needle, and Sewing needle.—Taught by a Sailmaker.
 4. Basket Making, Mat, and Palliasse making, &c. &c.
 5. Hutting and Tenting.
 6. Cooking by a good Camp Cook, (his instruction could hardly be given to regular classes.)
-

Every day the Learners would have to do the following things, for they require constant practice: 1—Light their own fires from a spark. 2—Cook part of their own meals. 3—Use their awls or needles; and, 4—Square, accurately, a billet of firewood with the axe, or other similar piece of Carpentry.

The materials used would be of the most inexpensive description; they would consist in great part of scraps and refuse, and of billets and faggots,—first worked up, then used as firewood.

In conclusion, I beg to express a sincere hope that the Military Authorities may think fit to countenance the scheme I propose, inasmuch as it aims at a very important result, at the same time that it requires a mere trifle of material support; and, although I have urged the matter only as affecting the soldier, yet if the system were brought into general use, the knowledge of "common things," thus acquired by the Militia man, would not be lost on the population at large.

FRANCIS GALTON.

55, VICTORIA STREET, WESTMINSTER,
4th May, 1855.