

E. G. CONSTAM
GRADUATE MECHANICAL ENGINEER, E T H

AIR MAIL

Brown Palace Hotel,
Denver, Colorado.
August 14, 1942

Captain John L. Tappin,
U. S. Army Ground Forces,
U. S. Army War College,
Washington, D. C.

ATTENTION SPECIAL PROJECT BRANCH.

Dear Sir:

Mr. Charles M. Dole, Chairman of the National Ski Patrol System,
New York, wired me today as follows:

"Write immediately and fully your problems, complaints
and suggestions to Captain John L. Tappin, Army War
College, Washington, D. C., Attention Special Project
Branch. Have discussed your letter with him by phone.
Will write you tomorrow."

I first met Mr. Dole in the winter of 1940-41, on a ski
excursion in Vermont and for a second time last November - if
my memory serves me correctly. We have no mutual business
relations or plans. I simply answer to the best of my know-
ledge all questions he asked and may ask me about European
civilian and military mountaineering.

For example: On June 22 a certain Doctor W. M. Reynolds, of
Greenwich, Connecticut, at the suggestion of Mr. Dole, asked
by letter what I knew about the means of transportation for
wounded mountain soldiers, and I, of course, wrote him all I
know on the subject on June 24, enclosing some sketches.

If you have any such problems I will be delighted to study them
and beg you to inquire about my competence and conscientiousness
in trams with the City of Denver, Department of Parks and
Improvements, and with the Aerial Tramway Commission of the State
of New Hampshire, Franconia, New Hampshire.

If, on the contrary, you are interested in the trams which the
Engineering Board actually tries to procure, I beg you to
believe me that unless they have by chance another European
specialist at hand who knows these portable trams as intimately
as I do, or unless they can after the war secure the services
of the two well-known firms who developed these trams in
collaboration with some outstanding army engineers over there,

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they will not within long years get models which in real mountain terrain comply with military needs. (See my two enclosures.)

As an officer, you will no doubt agree that it is preferable to know in advance that you cannot get the supplies on the mountains than to believe erroneously that you can do it with stuff "tried out" in Virginia.

The very first portable military tram was promoted by an Italian army engineer, a layman in trams. I think his name was Marazzi? The tram had a quarter inch rope, a bucket load of about 100 kilograms, continuous system and was no good at all, to the effect that it was exhibited on the World's Fair in Milan - I think in the year 1909 - for misleading purposes. The development which started at that time led, at the price of numerous breakdowns, to a handy portable tool so servicable in the turmoil of mountain warfare, that competent European mountain troop commanders call it 30% of the mountain warfare. All the outspoken stationery earthbound character and slowness of the civilian tram were overcome by Tetzlaff, Zuegg, Boselli and the genial Revel. I know this equipment so intimately that I know the strains by ice on the rope, hurricanes, shell blast and bomb blast to be taken care of, the unevenness of the emplacements of the terminals to be taken care of, the man hours for erection and dismounting of each part which has been studied scientifically and cut down over and over again. The German military trams were stored in Tempelhof, near Berlin, the Austrians in Leobersdorf, the Italians near Milan, the French at Versailles, but there were no good French ones. Trucks in shuttle service bring on or near the site parts first needed in erection, then the parts later and finally needed.

Had the Engineer Board a conception of the seriousness and delicacy of the problem, they would have called me long ago to Fort Belvoir. My licensees for the west of the U.S., the Mine & Smelter Supply Company of Denver, Colorado, yesterday got the Board's telegraphic assent to their wire reproduced in my letter to Mr. Charles Dole of August 11th.

Mine & Smelter and I were honored on July 20th by the order for a good sized Constan Ski Lift and two rope tows for training purposes at Camp Hale, Pando. The calculation and design work, which is my job, is already almost finished. Others are in charge of the manufacturing end. I will only have to make some one-day trips to Pando for periodically checking the work in the field, and some checking in the shops. Mine & Smelter will do their utmost to speed up delivery beyond the schedule of the order.

Captain John L. Tappin

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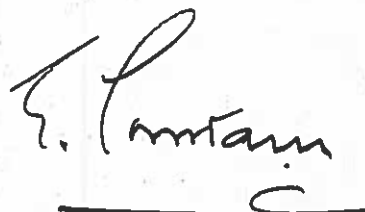
It therefore happens that I am just free to devote the bulk of my time to the design of the light portable tram in case Mine & Smelter gets the order from the Engineer Board. There is no interference whatsoever between Pando and this business. The Pando material will have left the shops long before portable equipment will be designed and enter the shop for manufacture. But even if there were such interference, is not combat more important than training? Should you have an urgent need for portables we could supply numbers of them directly from Denver to the site. That is to say, we do not need to try them out, although we like it, of course. I think there are a few slopes in the East where more or less conclusive tests can be made on really steep slopes of about 2000 feet vertical rise, in New Hampshire and Maine. The real object of such tests would appear to ascertain that the trams can be quickly pushed around in real mountain terrain. As to strain, shell blast, etc., you could rely on the safety factors of the European experience with which I am familiar. The same applies as to wear and tear.

If there is an urgent need I am of course at your disposition also to go out into the field in a civilian or military capacity at your convenience; as an enthused field officer I get more and more anxious to take an active part.

Trusting this meets with your favor, I am,

Yours very truly,

E. Constan.



C*B
Enc.
cc--Charles M. Dole