SOME NOTES ABOUT THE DOG-SLEDGING EQUIPMENT USED DURING THE FIRST WINTERING (Feb. 1957-Feb. 58), J.A.R.E.*

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1) A rattan sledge.—We had, for trial, a rattan sledge (but with hickory runners) of the size 402 cm x 65 cm x 23 cm for special lightness and to get more flexibility. The weight is 47 kg. The result obtained proved that rattan, as material for a sledge, is very noteworthy.

2) Sledge sail.—We tried to make our sledge run with a sail, which was made of duralumin pipe, nylon sheet and nylon rope, and had a main pole, not standing vertically for the sake of getting a wide range of vision in front. And we could have a successful result when the wind was in a good condition.

3) Others.—


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A HYPOTHETICAL FORMULA, ASSUMED “LAW OF LOADING” FOR DRIVING A DOG-TEAM.*

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A hypothetical formula analysing journey with dogs is presented as follows:

\[ Wt = \frac{4 r t f g a Wd N}{V} \]

Wt—total weight (in kg) of what the dogs have to draw.
V—is velocity (in km/hour)
Wd—means value of dogs’ weights
N-number of dogs constituting the team
r—function of soles of sledge-runners
f—function of vitality of dogs.
g—function relative to ground condition.
a—function covering other matters.

This formula is never perfect yet. I, however, believe that, even at its present stage, it will prove of some good practical value, as, for instance, when planning for a journey one can get “Wt” and easily determine a proper loading at the departure.

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