

a great deal of study to this and have found it impossible to devise, with the materials that are available, a better shelter against the Arctic climate than the igloo. Remember that, when the igloo is completed, it represents a perfect dome, proof against all local stress and strain. By the simple expedient of using a spiral method of construction, the Eskimo fashions his dome without any interior support. An igloo can be built by one man, and, if only a small shelter is required, in the space of half an hour. The arch of the Romans and the dome of the Byzantines have been regarded as miracles of architectural design. So they were, but the design of the igloo can be considered just as great an achievement.

Another example of the Eskimo's engineering ingenuity is the development of his sled. The flexibility of structure given by fixing the cross-bars to the runners by thongs instead of pegs permits the sled to ride easily over the rough ice; but most important of all, the use of mud as a coating for the runners produces the lowest co-efficient of friction on the snow that it's possible to obtain. Here again, modern science cannot improve on the methods developed by the Eskimo hundreds of years ago.

You may be curious to know, as I was, where the Eskimos get the mud for this purpose. I'm told that they get it during the warm weather from swampy grounds and let it dry. Then in the cold weather they make it into a paste with water from melted snow, coat their runners with it, and let it freeze. They then smooth the runners off. An Eskimo going on a long trip always carries some of this dry "powered mud" with him, just as we carry a spare tire. If part of the mud coating chips off the runner he unloads his sled, turns it upside down, mixes up some mud paste and repairs the damaged coating of the runner.

Then take the traditional walrus-harpoon. The head is detachable and comes loose from the shaft when the walrus is hit, thus saving the spear from being broken as the animal thrashes around. The head, however, is tied to the shaft by thongs, which prevents the shaft from getting lost, and it's also tied to a large inflated bladder. This bladder, as well as serving as a marker, tires the walrus out when he tries to pull it through the water as he dives.

The engineering instinct of the Eskimo is not by any means limited to the evolution of devices necessary for his existence. He has a mechanical ability ingrained in him. General Young, the Deputy Minister of Resources and Development, told me a story of what happened to him when he was a young subaltern in the Royal Canadian Corps of Signals, stationed at Aklavik in 1924. His alarm clock stopped and he did what the white man usually does when faced by such an emergency. If it had been merely the alarm I'm sure there would be nothing more to this story, but it was the clock itself, so he shook it violently, thumped it on the table, and then, when this "Immediate Action" failed, gave up. A young Eskimo boy who was watching said he could fix it. General Young, feeling that the clock was useless anyway, gave it to the Eskimo. I think that any of us faced with this clock would have quickly undone two or three screws, a spring would then have flown loose and half a dozen small wheels would have jumped all over the place. Not so with the