

NOTISER

A HANDY SEDIMENT SAMPLER

The sampler leads described by me (K. M. STRØM: A New Sampler Lead. N. Geol. Tidsskr. 14, 1934, p. 162-166) are too heavy and bulky for use when one is travelling light in order to be able to survey lakes off the beaten track.

They are also somewhat heavy for the light winches one is often compelled to use on board frail freshwater craft.

For the investigation of lakes with very difficult access in Northern Norway during the summer of 1935, I accordingly designed a tube lead for sampling bottom sediments, which turned out to work very well under all conditions. The lead was constructed by Mr. BJARNE ANDERSEN, and replicas may be bought from him. (Chemical Institute, University of Oslo.)

The lead consists of two parts, the brass tube with the bottom valve, and the extra weight, which is slipped down around the top of the tube. The valve construction is the same as previously described (op. cit.), but the valve is detachable from the tube to which it is secured with a bayonet fastening. The inner glass tube is thus extracted downwards from the protecting brass tube, the valve preventing the sediments from slipping out, and there is no need of reversing the lead, as was the case with the earlier construction.

When travelling as light as possible, e.g. when investigating a mountain lake singlehanded with all apparatus in a rucksack, the lead may be worked without the extra weight, and is then very light and compact. The weights are thus apportioned.

Brass tube and valve	865 g
Inner glass tube	95 "
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Total weight of lightest outfit	960 g
Extra weight	1 040 "
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Total weight as normally used	2 000 g

The total length of the brass tube is 59 cms, its outer diameter 2,8 cms. The glass tube is 50 cms long with an inner diameter of 1.8 cms.

The whole apparatus is illustrated on the figure. It should be noted that the extra weight is cast into the shape of 4 stabilising fins, which guide the tube through the water so that the descent is always vertical.

For travelling, the sampler lead and 20 glass tubes, with rubber stops and quantities of unlimed cotton (for filling the space above the sediments in the glass tubes) are carried in a wooden case. The length of the storage room for the glass tubes is exactly that of the tubes with rubber stops well in, so that there is no need for further securing the stops.

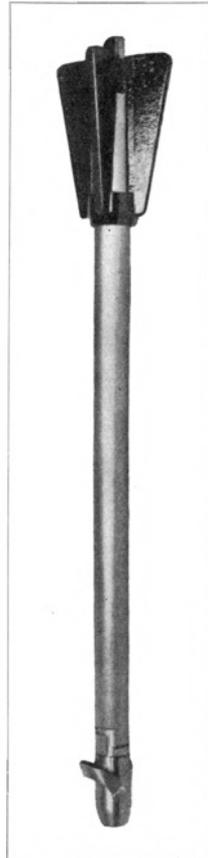
This sampler lead was used in a number of lakes, at depths down to 167 ms, and invariably worked well. Of course a light lead can never perform what can reasonably be expected of a heavy one only, but the glass tubes were as a rule about half filled with rather firm sediments. In looser deposits they would undoubtedly fill completely.

When trying to obtain samples in a land-locked fjord at 346 ms depth this sampler lead proved too light for the weight of wire corresponding to that depth.

Since the ball valve was described by me (op. cit.), I have got information of another sampler lead with a *rideau* shutter below the sounding tube. The shutter is operated by a messenger, and is thus unlike the ball valve unworkable in a seaway, though this sampler seems to be particularly useful in securing very soft muds. (Described by L. W. COLLET: *Les travaux du Laboratoire de géologie de l'Université de Genève, sur l'Arve et le Lac de Genève. Union Générale des Rhodaniens. 3ième Congrès du Rhone. Genève 1929, p. 203 206.*)

There has also very recently been published an account of a core sampler, where the sampler tube is fired into the bottom by an explosive charge contained in a kind of gun. (C. S. PIGGOT: *Apparatus to secure core samples from the ocean-bottom. Bull. Geol. Soc. Amer. 47, 5, 1936, p. 675 684.*)

Samples of up to 2.6 ms length were obtained in the open sea from depths down to 2300 ms. With such very long samples one usually encounters hard deposits below the softer. There is consequently little need of any valve at all, though the author reports on the loss of one core, which slid out again. In soft deposits a kind of valve would undoubtedly be necessary, and the ball valve is certainly strong enough to be fired into the bottom, as suggested also by me (op. cit.), though I thought of fitting the sampler as a rocket.



In any case the problem of obtaining core samples of the sea bottom long enough for geological studies is now finally solved through the application of Dr. C. S. PIGGOT's gun, preferably together with my ball valve.

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NORSK KARTOGRAFISK FORENING

På møte i opmålingsingeniørenes gruppe i Norsk ingeniørforening ^{10/12} 1936 blev det fremsatt forslag om å danne en Norsk kartografisk forening. Forslaget fikk almindelig tilslutning og ca. 50 interesserte tegnet sig foreløpig som medlemmer. Det blev opnevnt et arbeidsutvalg som skulde forberede et konstituerende møte.

Det konstituerende møte blev holdt i Ingeniørenes hus, Kronprinsens gate 17, mandag ^{8/2} 1937. Til møtet var også Norsk geologisk forening innbudt.

Efter foredrag av direktør K. S. KLINGENBERG om den terrestriske stereofotogrammetriske målemetodes bruk i Norge og om forandringer i hovedkartverkets utstyr, blev det vedtatt lover og valgt styre. Formann blev geodet, major FINN BJØRNSETH og sekretær ingeniør B. H. HAGEMAN.

For kartleggende geologer vil naturligvis denne forening være av interesse, og Norsk geologisk forening vil for fremtiden bli holdt underrettet om dens virksomhet. På den annen side vil det være en oppgave for geologene å fremholde at en geologisk forståelse av terrenget er nyttig for alle som arbeider med kartlegging.

Red.