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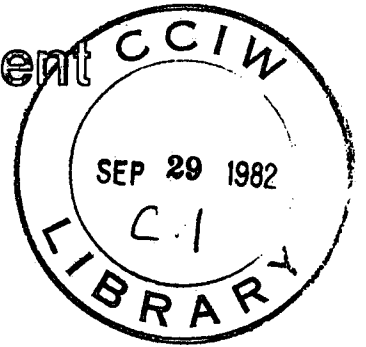


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APPARATUS FOR EXTRACTING INVERTEBRATES
FROM PEAT

by

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ABSTRACT

Special apparatus for extracting invertebrates from peat has been designed and built for Dr. W. Glooschenko under Study AE1-16. Emphasis was placed on making the equipment lightweight and compact for easy transportation to remote areas.

RÉSUMÉ

Un appareillage spécial pour l'extraction des invertébrés de la tourbe a été conçu et construit pour M. W. Glooschenko dans le cadre de l'étude AE1-16. On a mis l'accent sur la légèreté et la compacité pour faciliter le transport dans les régions éloignées.

MANAGEMENT PERSPECTIVE

Since peatlands are considered an extension of lake benthic systems, the mining of peat can have important effects upon the surrounding lake bodies.

The apparatus described in this report will assist in gaining more knowledge on the impact of peat bogs on adjacent water bodies.

T. Milne Dick
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July 22, 1982

PERSPECTIVE DE GESTION

Puisque les terrains tourbeux sont considérés comme un prolongement des systèmes benthiques des lacs, l'exploitation de la tourbe peut avoir des effets importants sur les lacs environnants.

L'appareillage décrit dans le présent rapport aidera à obtenir plus de connaissances sur l'influence des tourbières sur les masses d'eau voisines.

T. Milne Dick

Chef

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22 juillet 1982

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Figure 1. Apparatus for Extracting Invertebrates from Peat

1.0 INTRODUCTION

The client required the design and manufacture of a device to extract invertebrates from samples of peat obtained in bogs.

As the equipment was to be used in field locations such as Hudson Bay lowlands, the apparatus was to be light, compact and rugged.

2.0 DESIGN CRITERIA

- A quantity of four invertebrate extractor modules to be supplied. Each to consist of a sieve unit 20 cm in diameter, 5 cm in height and 2 mm mesh, with a funnel underneath and a drainline with stopcock.
- Incandescent lights to be centrally located over each module, each being individually adjustable up or down above the modules, and individually turned on or off. The intensity of light to be adjustable from one light dimmer (same intensity for all lights).
- Above hardware to be packaged strongly and compactly inside a light-weight but rugged box to take the rigours of field transportation.
- Temperature measurement capability in the sample peat was not requested.
- Equipment to be Hydro approved.

3.0 DESCRIPTION

With reference to Figure 1, the apparatus for extracting invertebrates from peat consists of four modules, each comprised of a 20 cm diameter x 15 cm long container (item 1) with a 2 mm mesh sieve below. Under each container, is attached a cone (item 2) which terminates at its lower end in a transparent cylindrical viewing tube (item 3) and p.v.c. stopcock (item 4). Above each container is an incandescent lamp (item 5) with its light intensity controlled by an electric light dimmer switch (item 6). Each lamp is mounted on a separate support stand (item 7) for adjustable height. This equipment is housed in a box (item 8) with hinged front panel and lid, which can be transported to the field and used with a portable electric generator or other 110 V AC supply.

4.0 TEST RESULTS

Full testing was not done nor were samples of peat available. Tests were made for water leaks. Hydro's approval was obtained and the electrical system was fully operational.

5.0 CONCLUSIONS

The equipment meets the specifications requested by the client. It ought to function as designed.

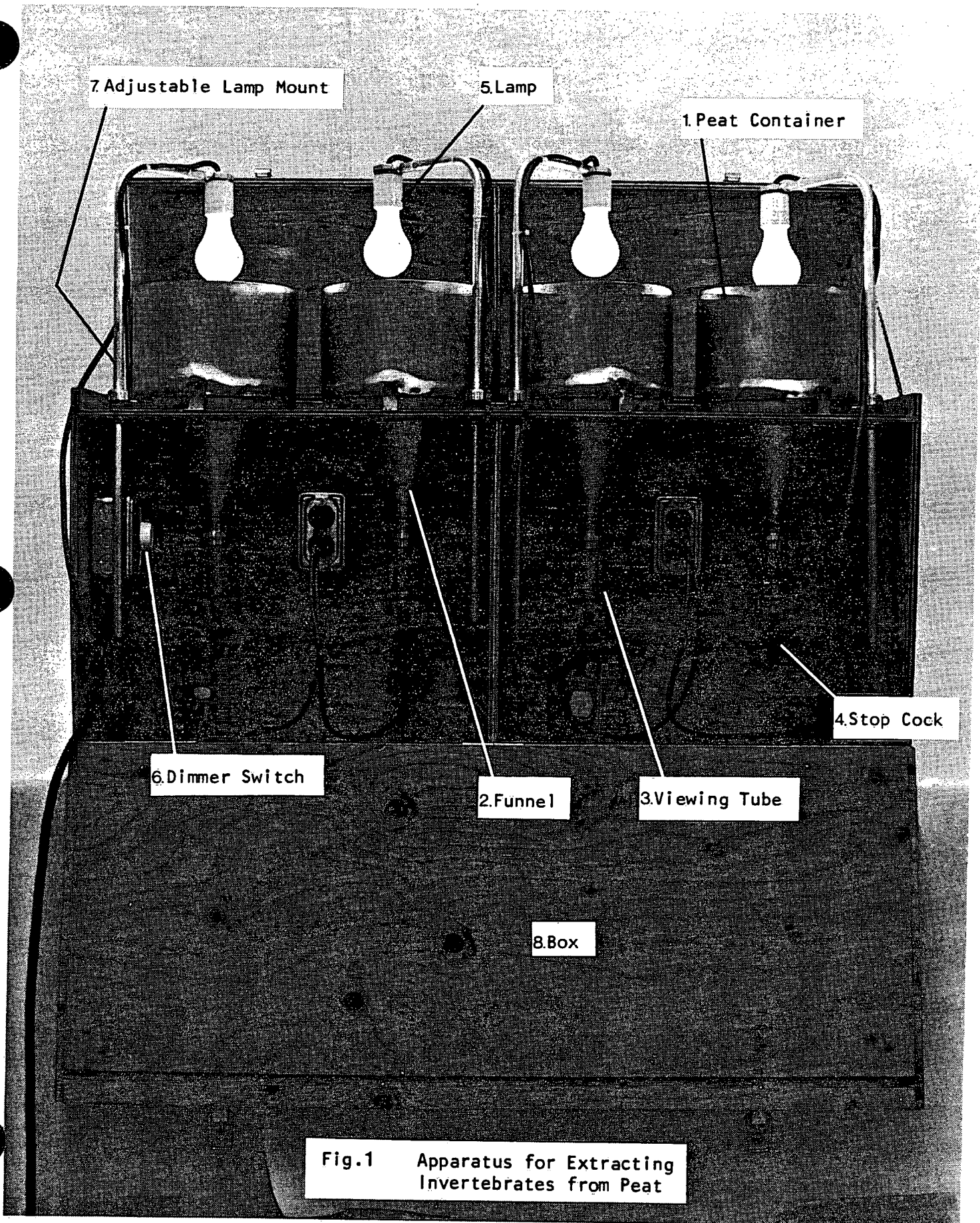


Fig.1 Apparatus for Extracting Invertebrates from Peat

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