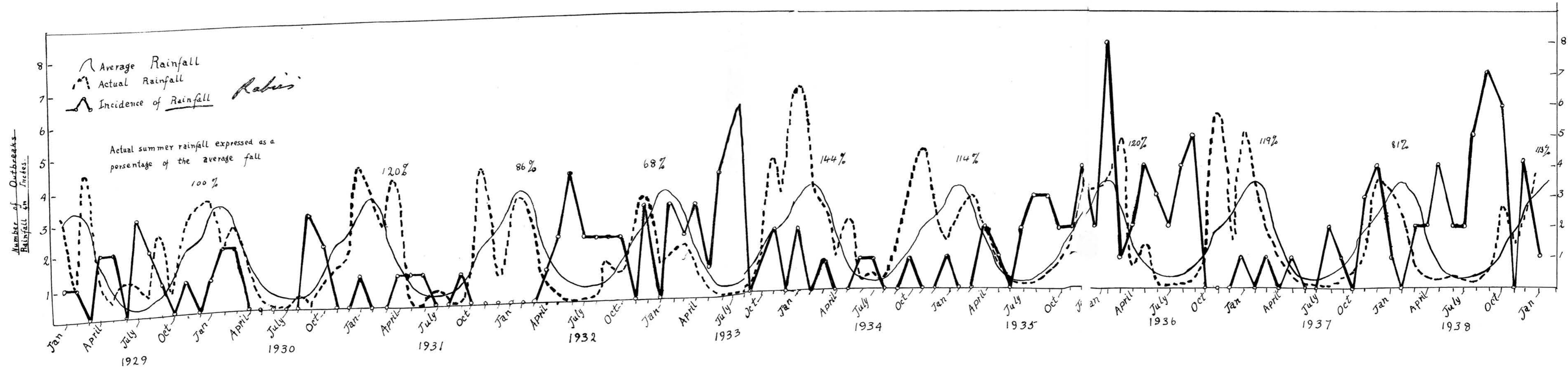
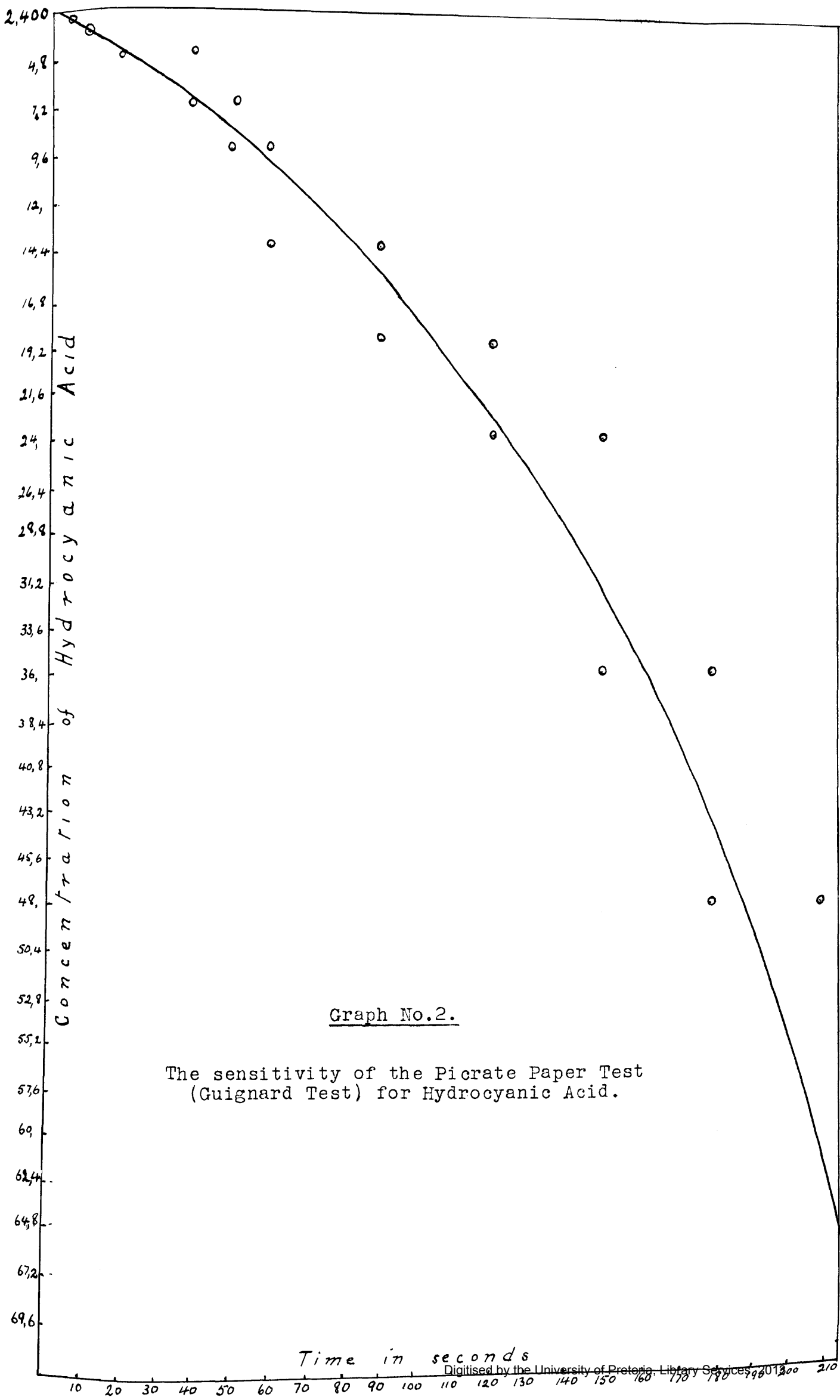


GRAPH I

The Seasonal Incidence of Rabies.

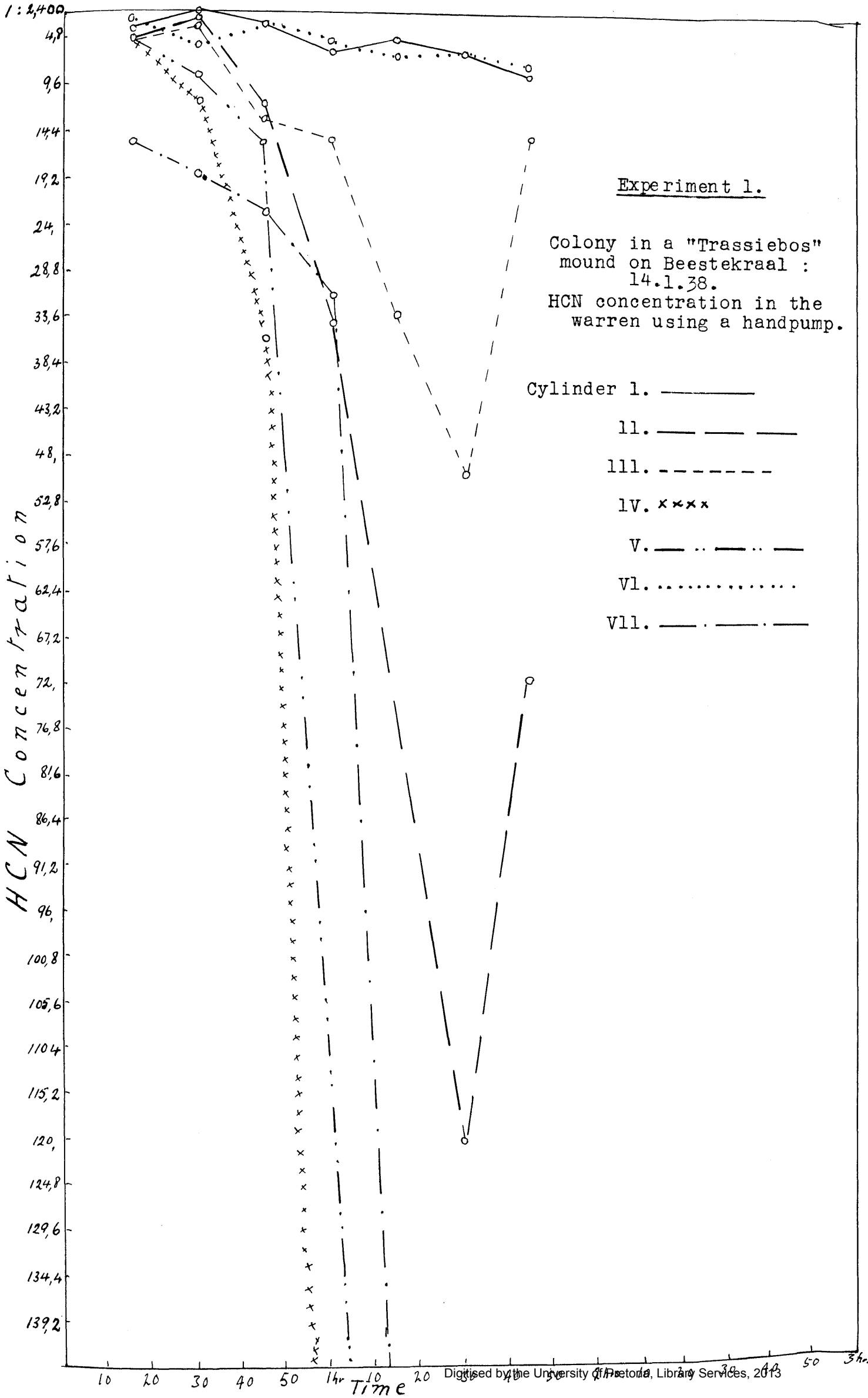




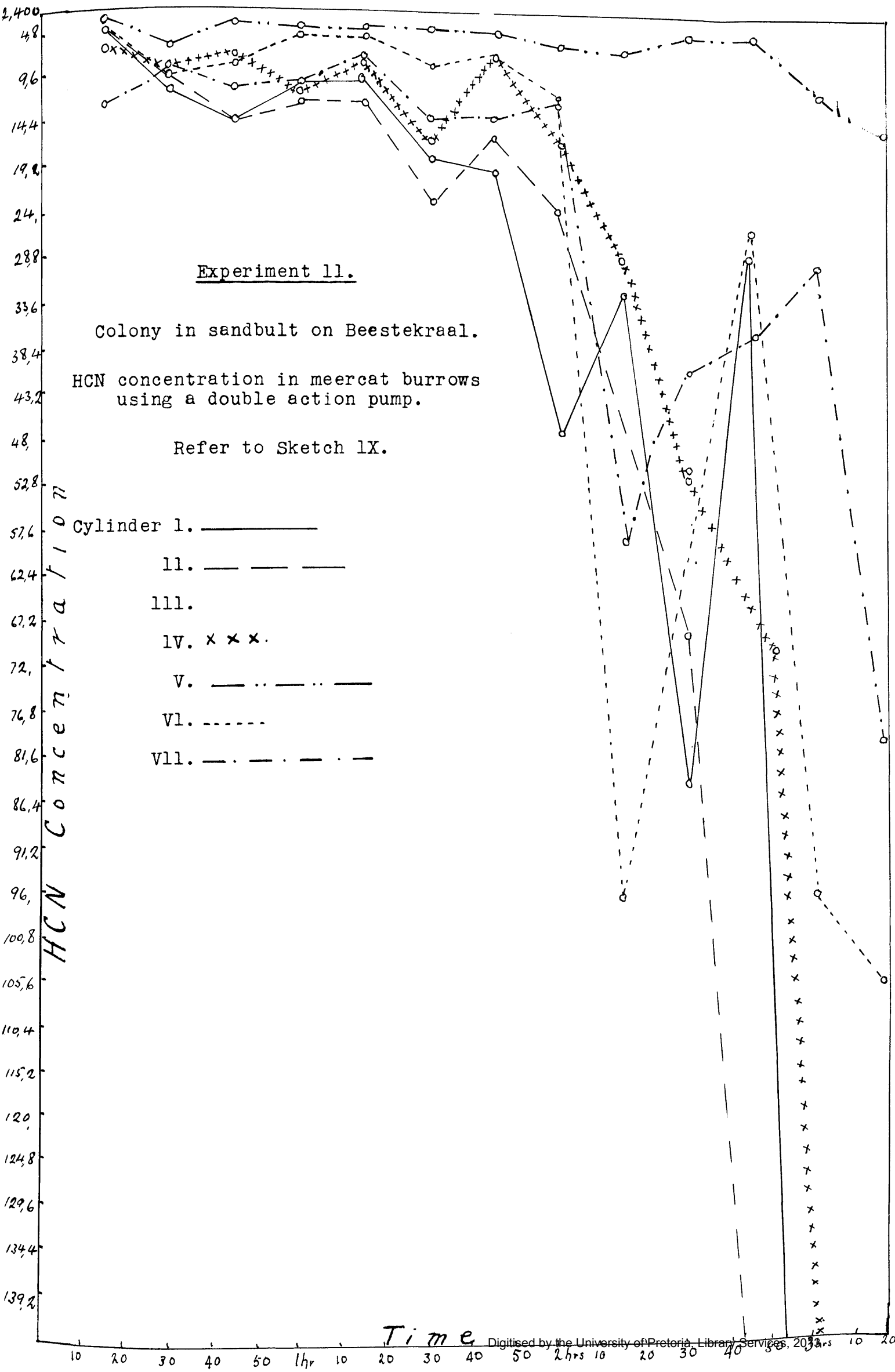
Graph No.2.

The sensitivity of the Picrate Paper Test (Guignard Test) for Hydrocyanic Acid.

GRAPH 111.



GRAPH 4.

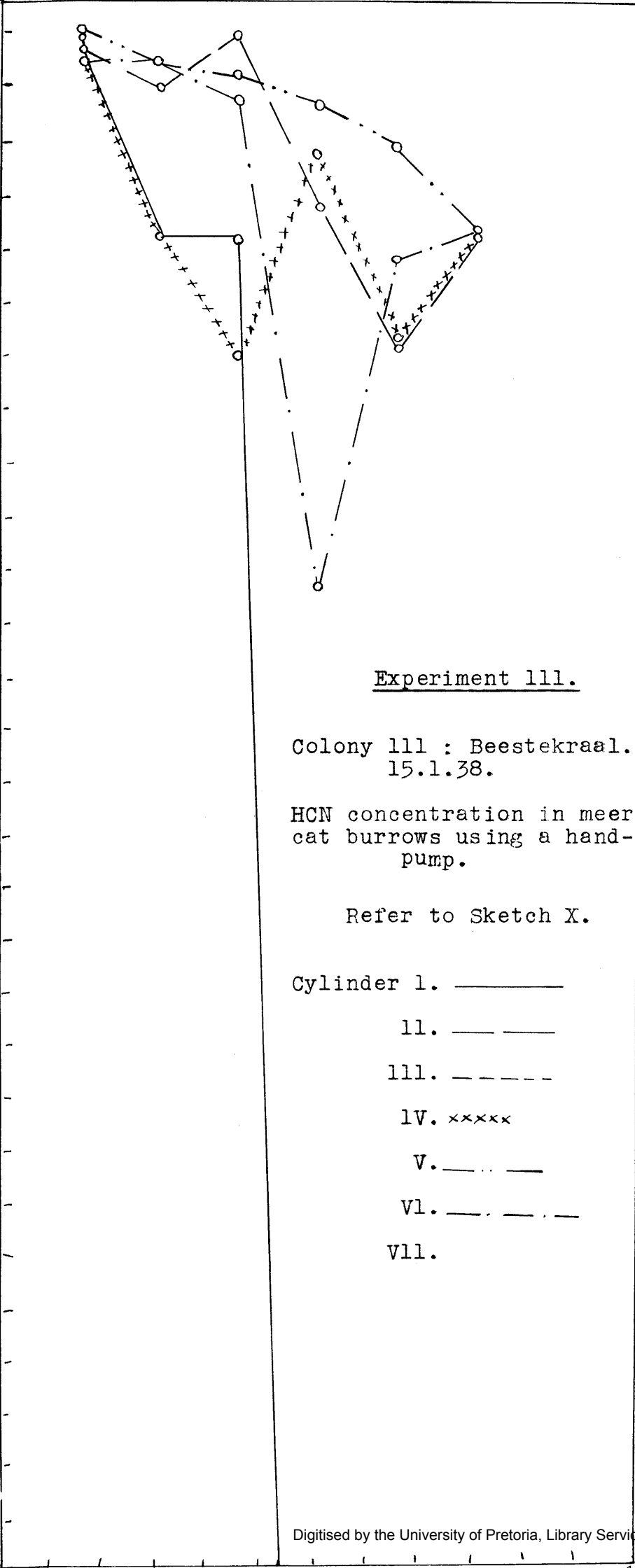


GRAPH V.

1 : 2,400

HCN Concentration

4,8
9,6
14,4
19,2
24,
28,8
33,6
38,4
43,2
48,
52,8
57,6
62,4
67,2
72,
76,8
81,6
86,4
91,2
96,
100,8
105,6
110,4
115,2
120,
124,8
129,6
134,4
139,2



Experiment III.

Colony III : Beestekraal.
15.1.38.

HCN concentration in meer-
cat burrows using a hand-
pump.

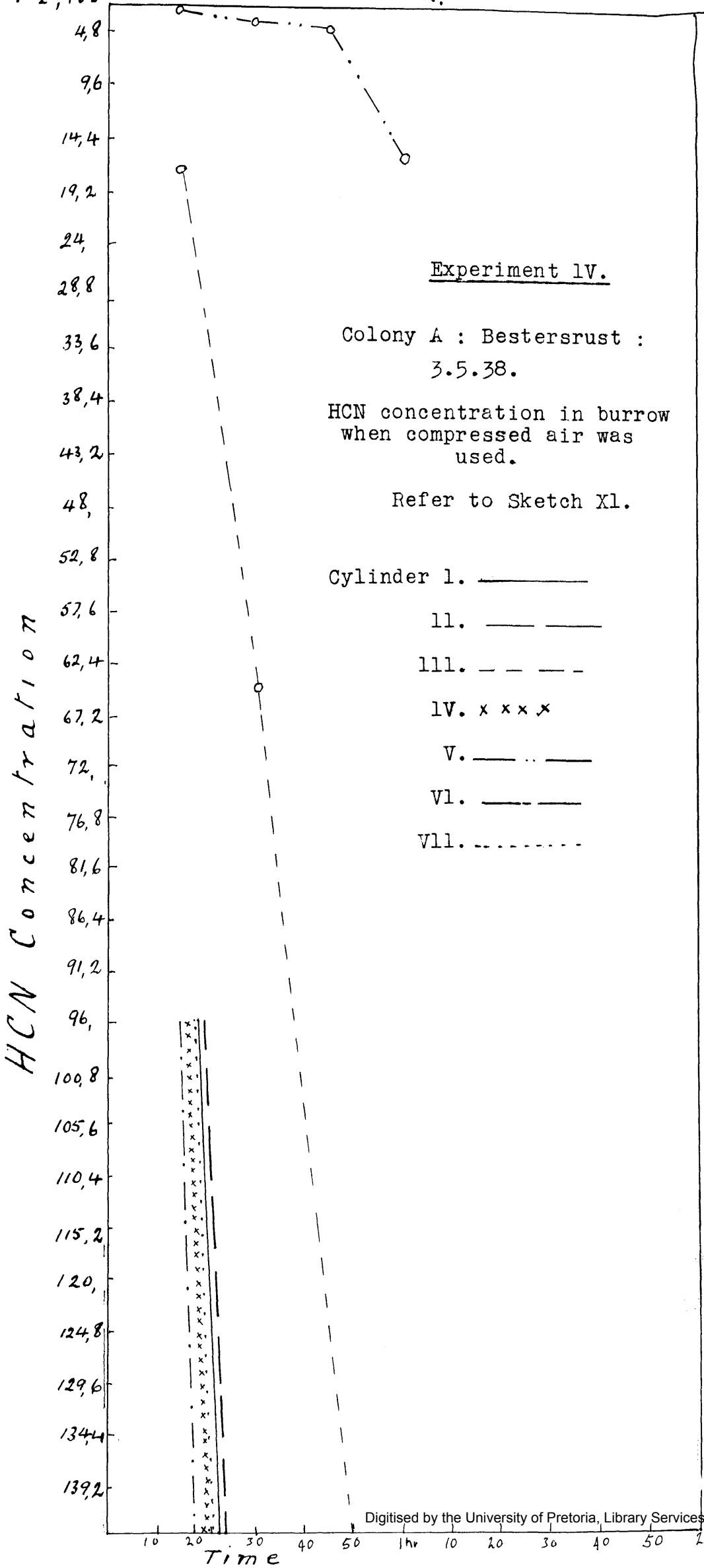
Refer to Sketch X.

- Cylinder I. —————
- II. ————
- III. - - - - -
- IV. xxxxxx
- V.
- VI. —
- VII. ————

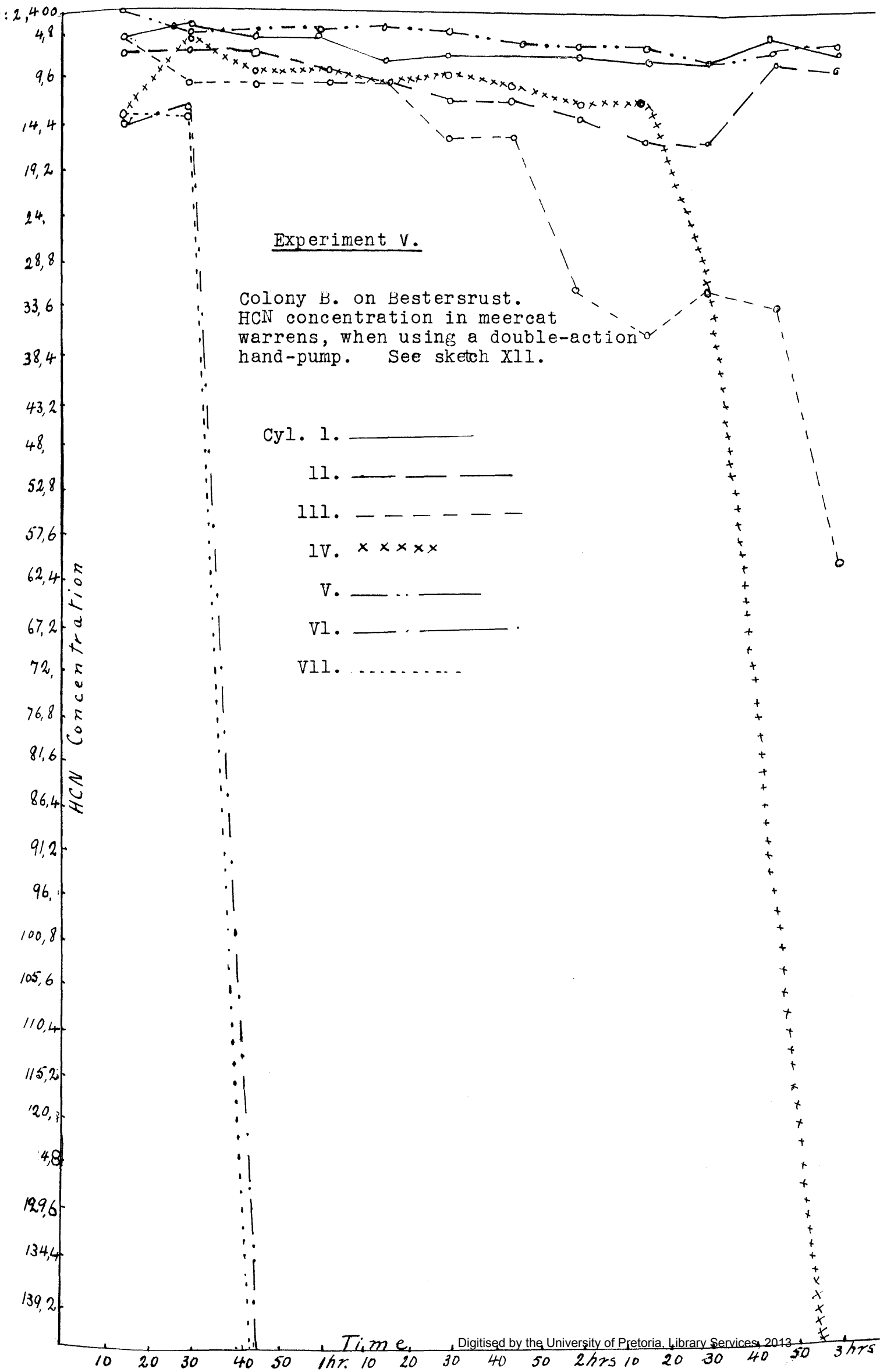
10 20 30 40 50 Time 1hr 10 20 30 40 50 2hrs.

1 : 2,400

GRAPH VII.



Graph 8.



GRAPH IX.

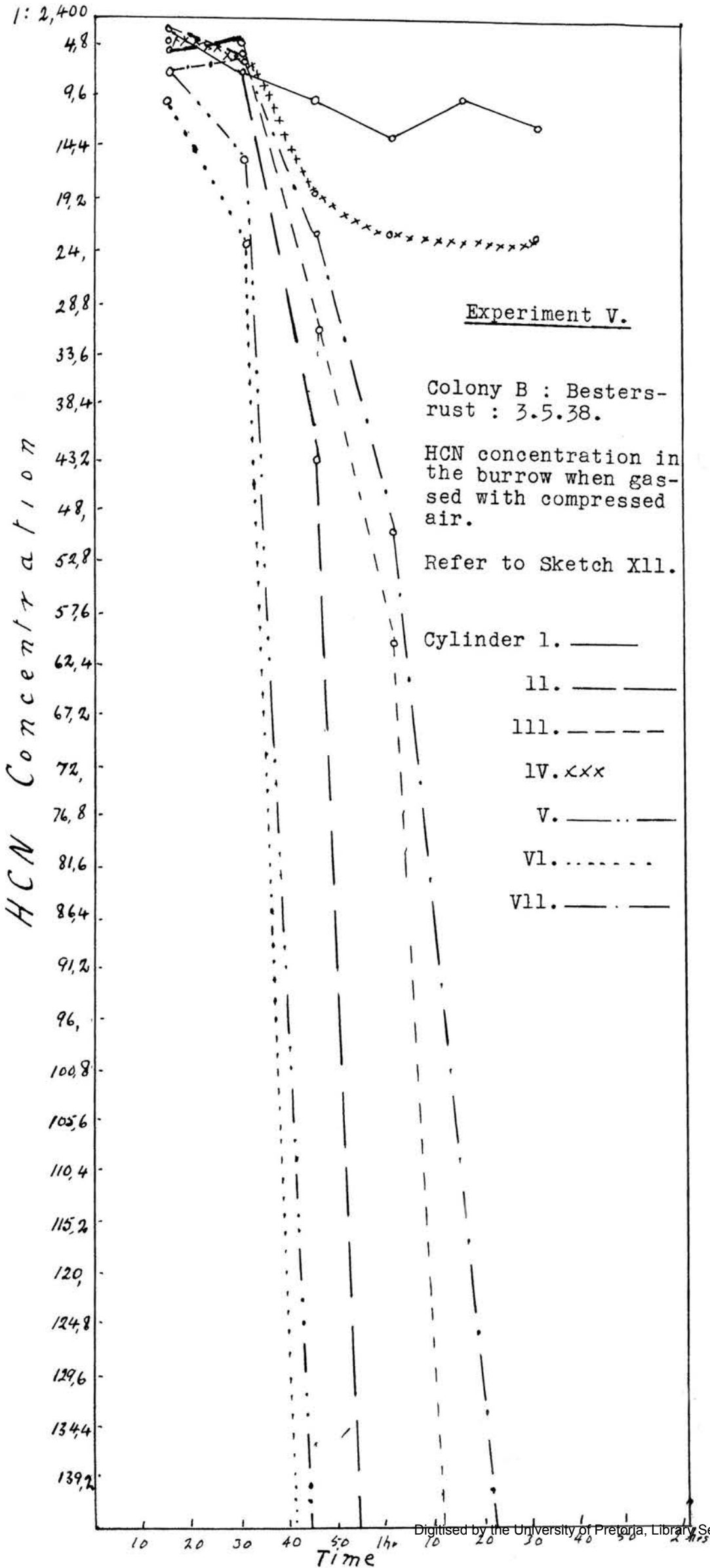
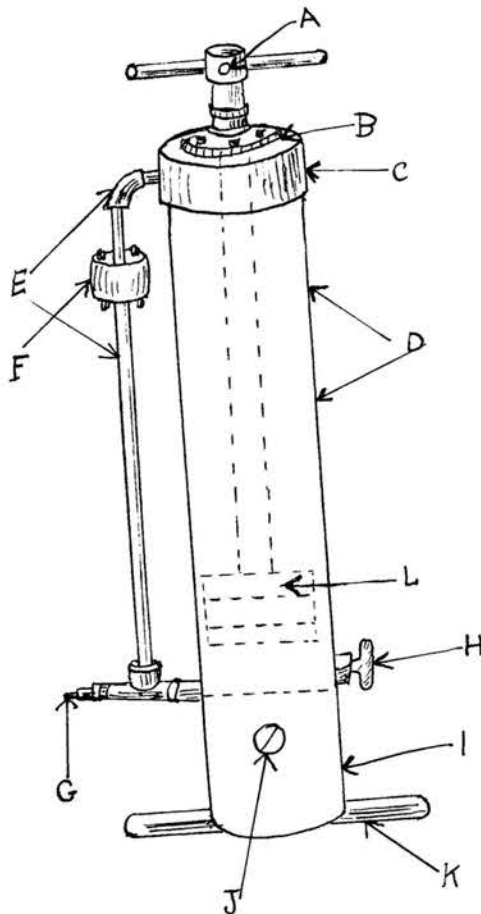


FIG.1
SCHOEMAN DOUBLE-ACTION PUMP.



- A. Is the handle with an air-inlet for supplying the Cylinder
- D. with air on the downward stroke of the piston.
- B. is a brass plate which compresses and expands a rubber ring on the inside which forms an air seal at the top of the cylinder, and is also fitted with an air slot through which air is sucked in on the downward stroke and forced into pipe E on the upward stroke.
- E. is the pipe and fittings which convey the upstroke air to the outlet G, and is fitted with a non return valve, housed in
- F.
- C. is a brass strengthened hush.
- G. is the outlet nozzle to which a half inch hose is fitted.
- H. is the handle which controls a valve in the chamber I which regulates the powder supply to the outlet G.
- J. is an inlet fitted with an air tight cap for filling the chamber I with powder.
- K. is a footrest.
- L. is the piston, fitted with rubber piston rings, which expand when pressure is applied.

The principle on which the pump works is shortly as follows:

On the downward stroke air is forced into the powder chamber I, where it disturbs the powder, which escapes through the valve controlled by H, into the outlet G. By turning the handle H, the amount of powder blown out can be either decreased or increased as required. On the upward stroke clean air is forced into the outlet G, through E, so as to provide some force behind the powder laden air forced out on the downward stroke.



Fig 19. Gassing equipment, consisting of a Schoeman double action pump, spanner for opening the dust chamber and a spoon for filling it. A supply of Cyanogas and a spade for closing the holes where the gas emerges. See descriptive sketch of the Schoeman pump.

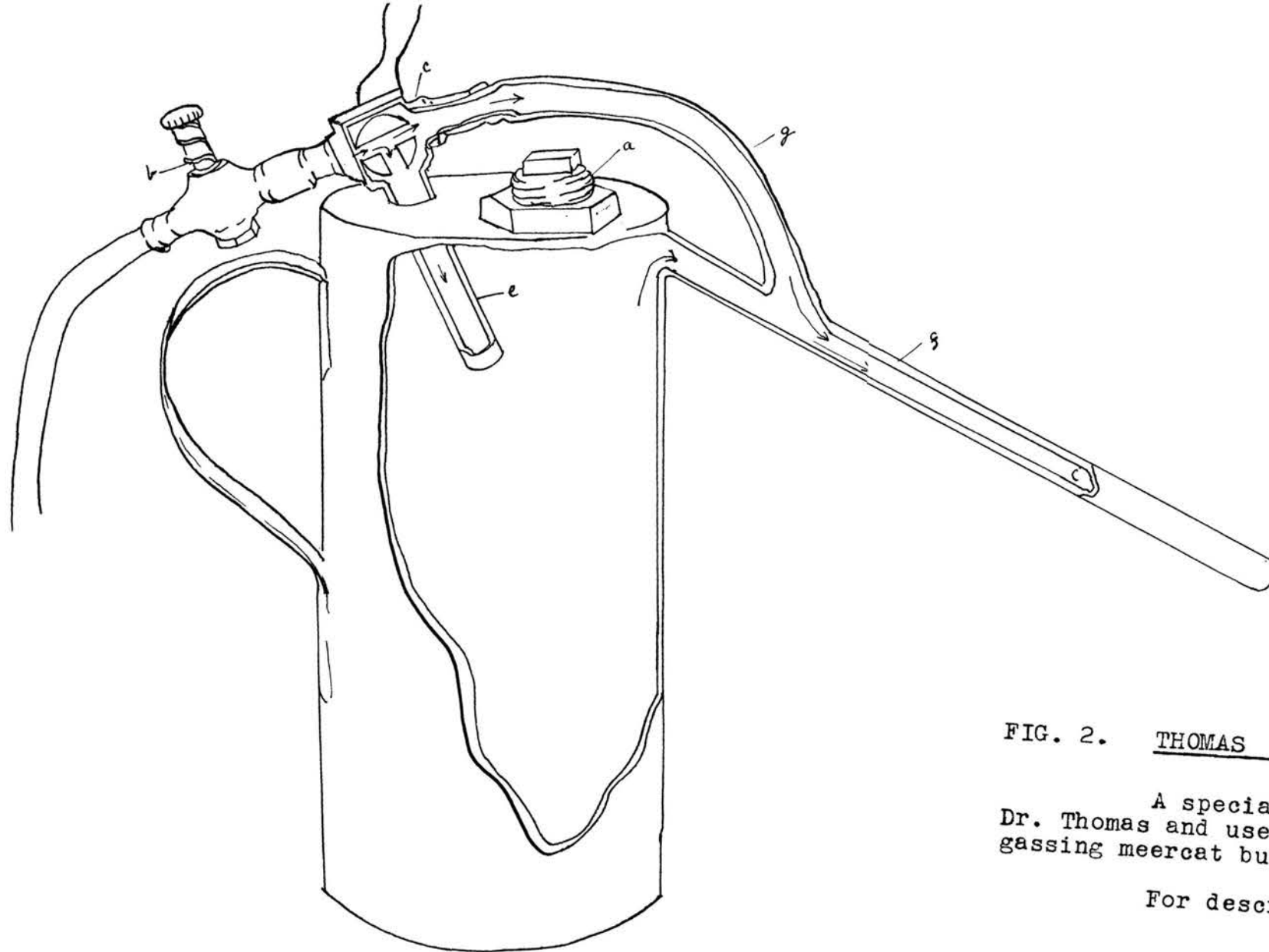


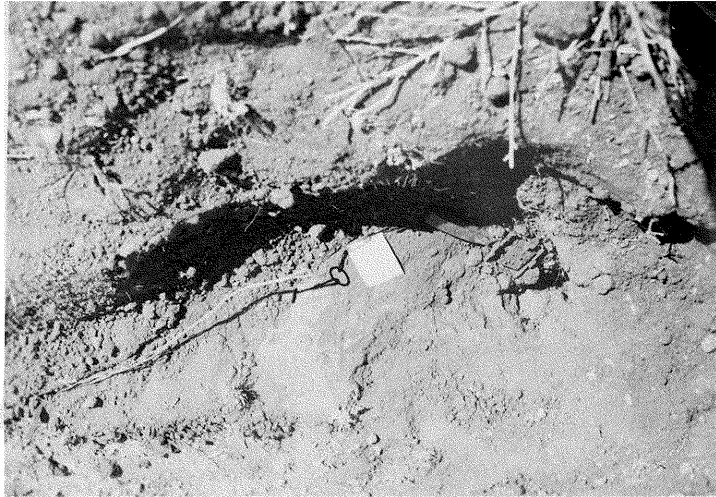
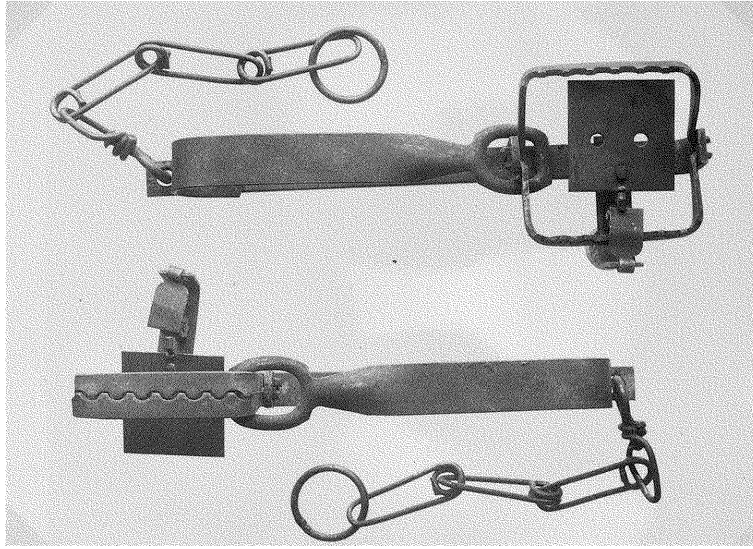
FIG. 2. THOMAS INSUFLATOR.

A special insuflator designed by Dr. Thomas and used with compressed air for gassing meercat burrows.

For description see text.



Fig. 20 and 21. Gassing a meercat warren with the Compressed air plant, and the insuflator designed by Dr. Thomas (See descriptive sketch).



Figs. 23 & 24. The traps used and the method of trapping at reopened meercat holes. Note how the trap (3" metal gintrap) is laid and secured. After covering the flap with the piece of paper shown, the trap is lightly covered with soil until nothing of it is visible.



Fig. 22. A large meercat colony, in which the inhabitants were successfully gassed and trapped. The colony situated on Tafelkop, Bloemfontein district has remained unopened for $2\frac{1}{2}$ months.



Fig.26 Gassing a colony. Note the boys closing the holes from which the Cyanogas emerges.



Fig. 27. Antheaps are useful for erecting temporary beacons to prevent overlapping or missing sections in combing the veld for meercat colonies.



Fig. 28. The result of a days trapping. The native on the left holds two Suricates, the Stock Inspector two Squirrels while the two natives in the centre hold yellow mongooses.



Fig. 29. A skunk in a trap.



Figs. 30 & 31. The explosion and result of the explosion on Trassiebos Colony (No. 45) on Beestekraal using 9 lbs. of 40% dynamite. On returning after the blasting, a *Cynictis* crawled out and staggered away. 4 others were found dead on excavations.



Figs. 32 and 33. The explosion and result of the explosion on an underground colony, situated at the foot of a "stony kopje" on Trompsburg Commonage. 20 lbs. of 50% Ammon. Gel. was used. Refer to sketch XLV. A live "Cynictis in a dazed condition crawled out from amongst the rubble after the explosion.



Fig. 11.

A snap taken of the veld on the Vryburg Commonage on 15th November 1938, showing the barrenness of the veld at that time.