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QUALITY ENGINEERING
LABORATORY BÖBLINGEN

Title: PERCENT ASH

1.0 INTRODUCTION

1.1 SCOPE

1.1.1 This document establishes the method for determining percent ash of card stock and paper.

1.2 REFERENCES

1.2.1 Standards

TAPPI T402 Conditioning Paper and Paperboard for Testing

1.3 AUTHORIZATION

1.3.1 This document is authorized by the Manager of Quality Assurance Consumables.

1.4 TEST EQUIPMENT/MATERIAL

1.4.1 Desiccator (Figure 2)

1.4.2 Chainomatic Analytical Balance or approved equivalent (Figure 1).

1.4.3 Temco Furnace (Type 1400) or approved equivalent.

1.4.4 Crucible platinum or approved equivalent.

1.5 CALIBRATION

1.5.1 Prior to use, the Chainomatic Analytical Balance should be checked for levelness and accuracy of zero balance. The level bubble can be centered by the adjustment screws located at the left and right front corners of the cabinet.

2.0 PROCEDURE

2.1 SAMPLE PREPARATION

2.1.1 The test specimen shall consist of small pieces of paper representative of at least two data processing cards (total weight shall not be less than one gram) or small pieces of paper (at least 100 square inches).

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- 2.1.2 Environment for conditioning and testing specimen(s) shall be in accordance with TAPPI T402.

3.0 TEST INSTRUCTIONS

NOTE: Refer to applicable specification for actual value(s) to be tested.

- 3.1 Weigh out 2.5 grams (read to nearest .01 gram) of small pieces of paper of the test specimen and place into a clean crucible.
- 3.2 Place crucible in Muffle Furnace and bring to a temperature of 1700F and hold for one hour. Care must be exercised to avoid loss of small particles at this time.
- 3.3 Remove crucible and place in desiccator and allow it to remain until it is at room temperature.
- 3.4 Remove contents of crucible and place in weighing tray.
- 3.5 Weigh contents to nearest .001 grams.

4.0 REPORTING

- 4.1 Compute percentage of ash, divide weight of residue by weight of the moisture free* specimen and multiply by 100 for percentage.

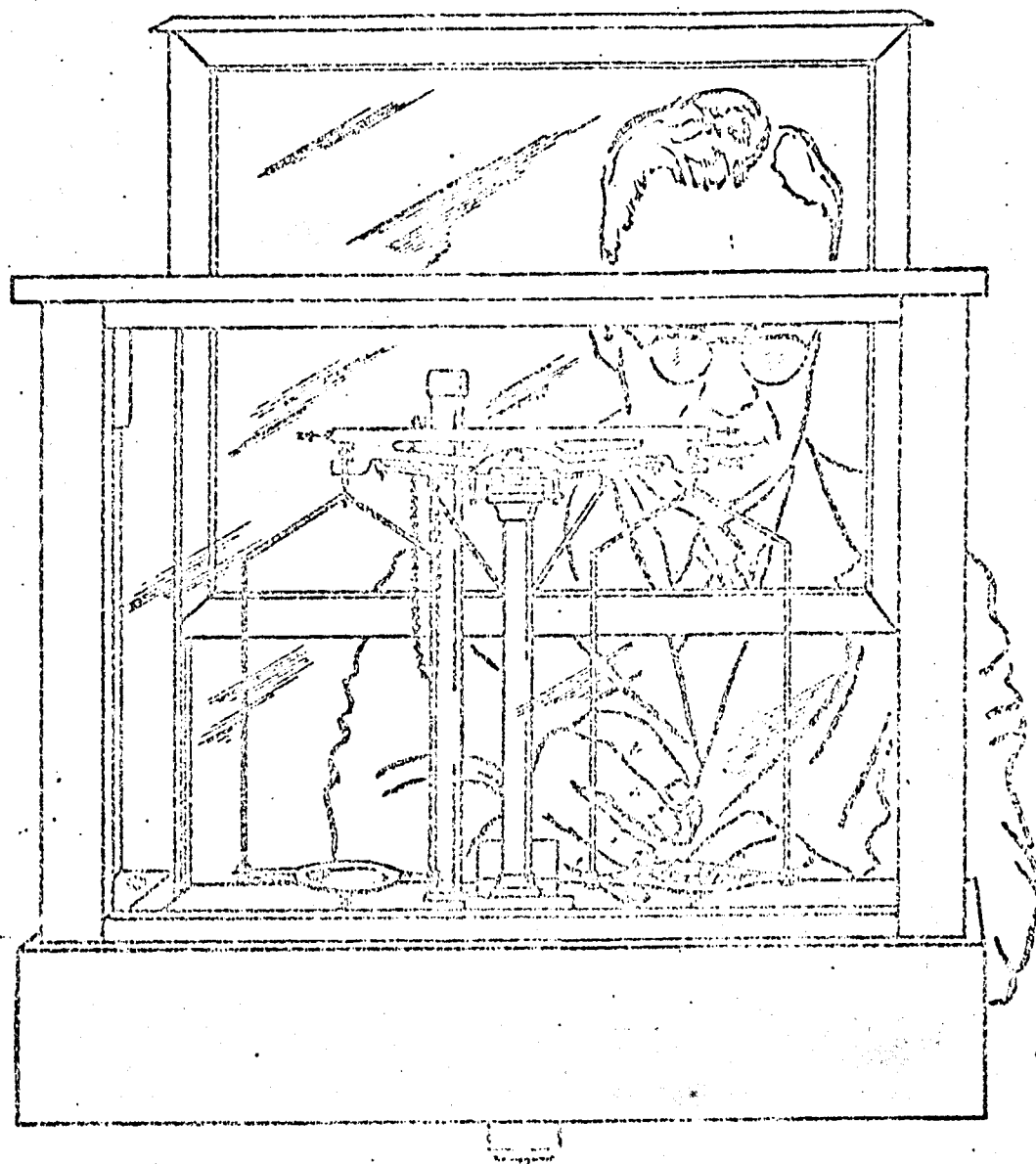
*Moisture free weight is obtained by multiplying original weight by 93.5%.

- 4.2 Record to nearest .1% as percent of ash.

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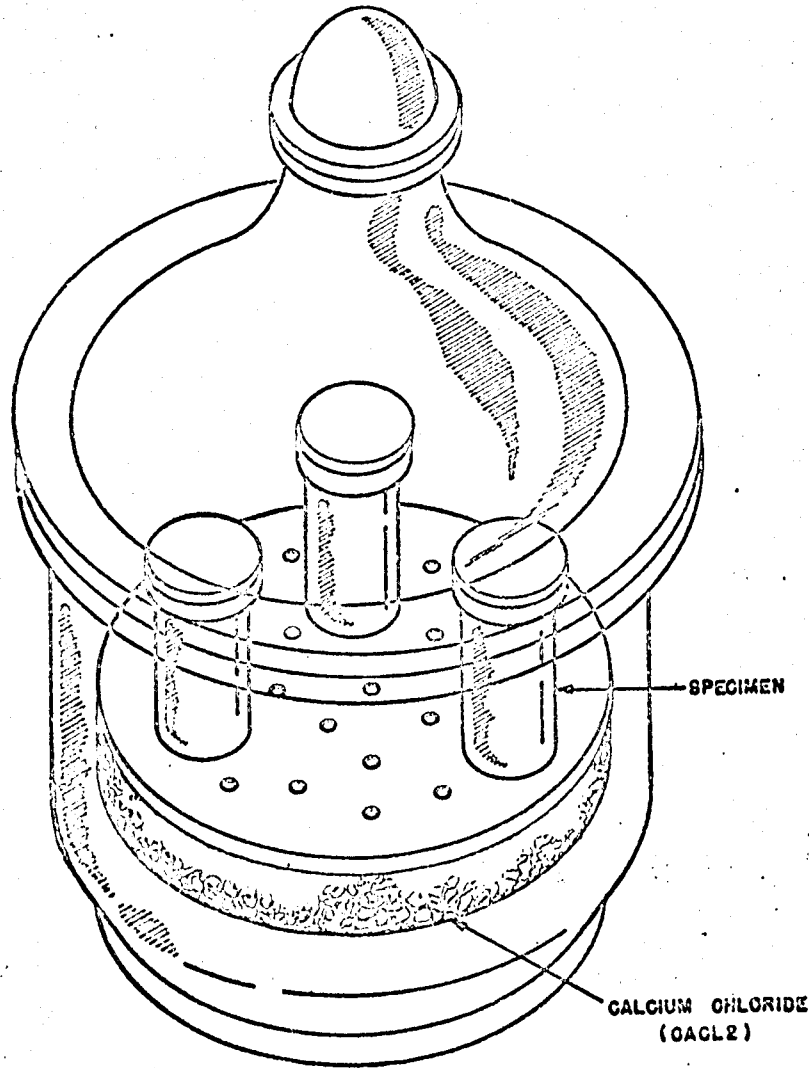
CHAINOMATIC ANALYTICAL BALANCE

Figure 1

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DESICCATOR

Figure 2