HIGHER TECHNICAL INSTITUTE

MECHANICAL ENGINEERING COURSE

DIPLOMA PROJECT

DESIGN AND CONSTRUCTION OF THE CARTRIDGE METAL HEAD DIES

M/604

BY : PSIMOLOPHITIS STYLIANOS-ELIAS

JUNE 1992

ACKNOWLEDGMENTS

Primarily I would like to express my gratitude to my project Supervisor Dr. L.G. Lazaris, lecturer at the HTI, who has been very helpful and encouraging throughout the preparation of my project.

I also want to thank G and L Calibers LTD, for the use of their facilities in executing the construction phase of my project.

CHAPTER 1

Introduction

1.1 Need Identification

The purpose of this project, was to design the dies required for producing the metallic head of a cartridge by using conventional manufacturing techniques.

The hunting cartridges or shotshell ammunitions as they are called, consist of the following parts :

- An external tube of plastic or paper (A)
- A metallic head (H)
- A base wad (G)
- Propulsive powder (E)
- Internal wad and/or lead container (D)
- Lead or steel shot or single bullet (C)
- Primer (F)

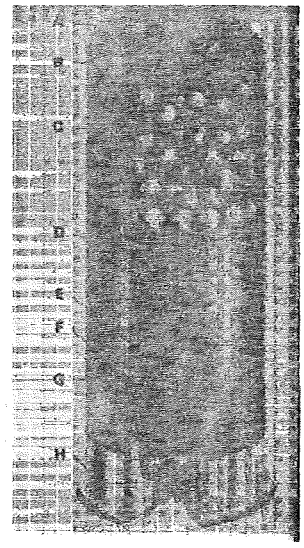

Fig 1.1 - Main parts of a typical shotshell

CONTENTS

(contents continued)

(contents continued)