INTRODUCTION

Schistosomiasis is a disease prevailing in Egypt and other countries. The parasite responsible for this disease is a flat worm which live in mesentric veins as in the case of Schistosoma mansoni or near the veins of the bladder as in Schistosoma haematobium. A similar parasite, namely, Schistosoma japonicum is not known in Egypt.

The life cycle of the parasite comprises a period where its larvae, the miracidia, lives and propagates in snails. Two species of fresh water snails are necessary for the completion of the life cycle of Schistosoma mansoni and Schistosoma haematobium each. They are Biomphalaria alexandrina and Bulinus trancatus, respectively.

It has long been thought, that combating these snails by chemicals, might lead to decreasing and/or in favorable cases to the prevention of the disease. For this reason a number of molluscicidal agents have been introduced for laboratory, followed by field trials, which will be dealt with in more details in the general part of this thesis.

However, work is also in progress for the synthesis and testing of new molluscicidal agents. This is mainly, due to the observation that all the molluscicides, which are in common use now, are also toxic to fish and some of them are toxic to mann.

It might be as well that extensive mollusciciding may result in the development of resistance among snails which necessitate the periodical change of old molluscicides with other new ones.

In the special part of this thesis, compounds belong to four different groups, namely, tritylthiourea and semicarbazide, thiadiazoles, phenoxycinnamic acids, and substituted nitroethylenes.