Room 9

nature notes

vol 8 no 3 6 cents

contents

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Cover:
"SHAGGY INK CAP". see page 7.
Photo: F. Rogers.

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Next issue: 2/6/71.

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Answer to last month's mystery picture: cross-section of a Mud-dauber Wasp's nest.

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Sketches: Mrs. Sharpin.

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editorial

Dear Girls and Boys,

Survival!!

A great many people are starting to think more and more about our survival.

Everything that lives wants to go on living: human beings, plants, animals, birds and of course, fish; and they all want to go on living in the happiest and most rewarding way possible.

Each and all are equipped with a special make up to help them to do this. People have the power to think, other living things are blessed with a mixture of camouflage, speed, strength, size, protective devices: ____ ____ ____ ____ you may add to these. But what is really important is that the survival of all is dependent one upon another.

Therefore, we as people, the only living things with power to think must organize ourselves to ensure that the plants, the birds, the animals and the fish will continue to be our partners in happy living.

I wish you all worthwhile "Nature Notes" reading during 1971.

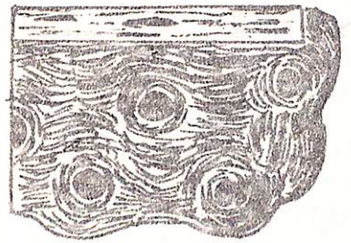
J. N. Pruden,
District Inspector.

where are they

DURING summer and autumn we spray or hang up "magic" strips to rid our homes of insect pests. We finally have a few months freedom from these pests, only to find that they return with the warm days in the following spring.

Where have they been?

How have these creatures, which show up again in the warm weather, survived?



Nest of the Mud-dauber Wasp.

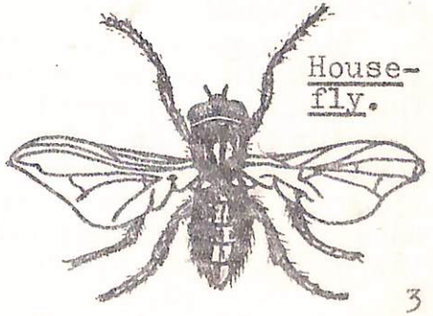
Mud-dauber Wasp.

WASPS:

The Australian mud-dauber constructs several mud cells in a row or group. The cells are filled with partially-paralysed caterpillars which remain fresh but inactive. A single egg is laid at the end of each cell. In the following season the egg hatches and feeds on the caterpillar before completing its life cycle.

FLIES:

Even today the true story has not been solved. The flies which appear at the start of each summer could be immigrants from the warmer parts of Australia. Although in the summer the fly completes its life cycle in three weeks, it is possible that a few flies survive the

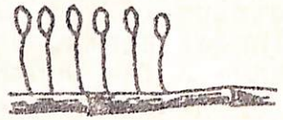


Housefly.

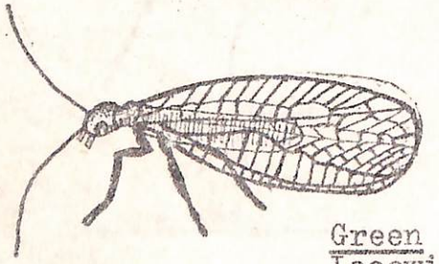
winter as dormant larvae, pupae, or imagines. (Perfect adult insects.)

LACEWINGS:

The adult female deposits her eggs on the tips of very slender thread-like stalks. Here they stand like pin mould until the warm weather in spring when they hatch.



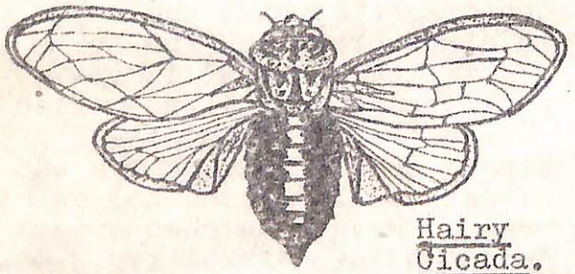
Green Lacewing Eggs.



Green Lacewing.

CICADAS:

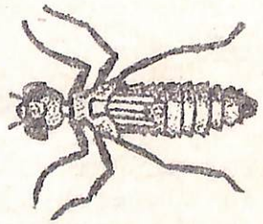
When the nymphs hatch from the eggs deposited in twigs, they fall to the ground and immediately begin to burrow beneath the surface. Here they burrow and feed on the root juices of the plants. They remain beneath the soil for anything from 3 to 17 years to emerge in a summer, living as adults for only a few days.



Hairy Cicada.

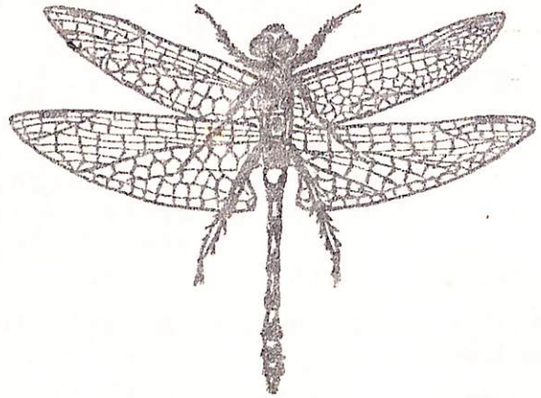
DRAGON FLIES:

The eggs are laid on the surface of ponds in autumn where they hatch. The nymphs then spend the winter on the floor of the lake, stream or pond. They closely resemble the pond floor as they move around for food. This is an excellent camouflage. In the spring each nymph crawls out of



Dragon-fly Nymph.

the water to split down the back and allow the adult insect to emerge.



Adult Dragon-fly.

COULD YOUR SCHOOL MAKE USE OF MORE COPIES OF NATURE NOTES?

WOULD ANY OF YOUR FRIENDS BE INTERESTED IN NATURE NOTES?

TO INCREASE ORDERS OR TO BEGIN NEW ORDERS PLEASE CONTACT:

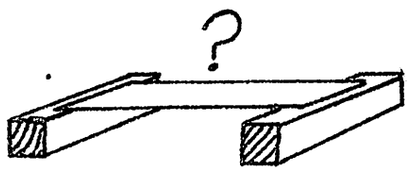
Nature Notes,

P.O. Box 30,

Nunawading, 3131

science

Set up the following: two boxes and a sheet of drawing paper as they are arranged in this picture.

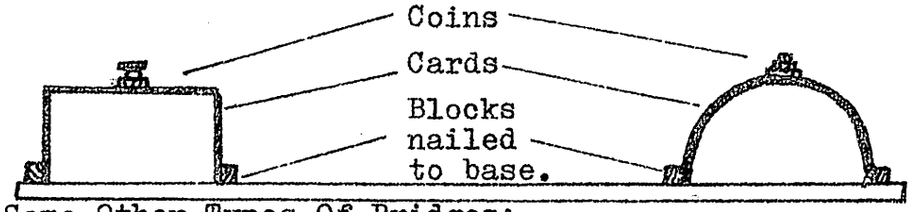


The problem is to place the drawing paper over the boxes in such a way that it will support a weight. Choose a fairly heavy weight, e.g. a bottle of ink, or a bottle of school milk, or a bottle of clag.

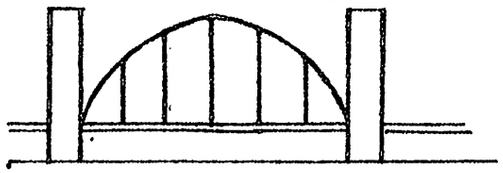
How can you arrange the paper so that it will take the greatest possible weight?

This gets us talking about bridges doesn't it. Make some sketches of the many types of bridges that you have actually seen, or that you have seen in books.

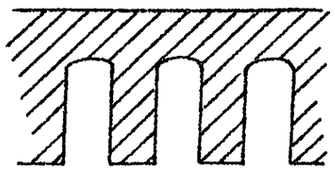
Now make these two models. You may test these by piling small weights, such as coins, on the top. Which shape can take the most weight?



Some Other Types Of Bridges:



Where is there a famous example of this type?

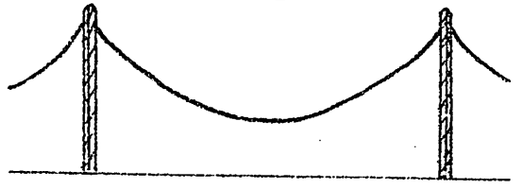


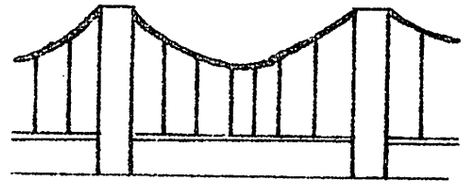
Several arches are sometimes used.

bridges

SUSPENSION BRIDGES:

A Simple Type:



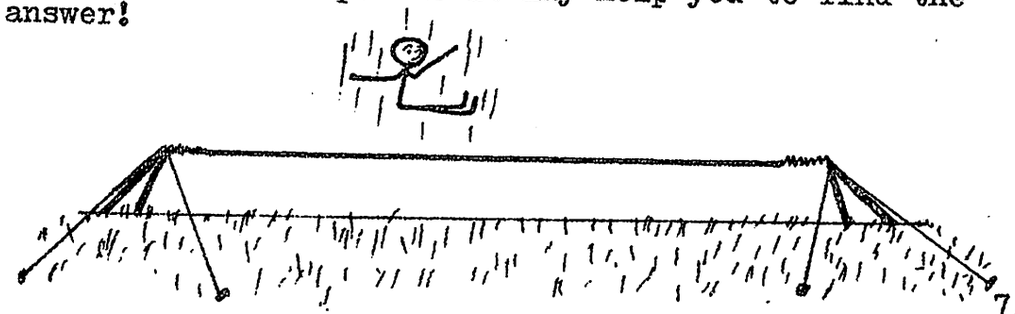


Did you know that before a column of soldiers marches across a suspension bridge the officer must give the order to "break step"? That is, all the soldiers must avoid marching in step.

This order was the result of a series of accidents that occured when soldiers marched in step across this type of bridge. In one incident, the officer was marching his sixty-eight men across a bridge and had reached the centre when a dreadful crash was heard. One side of the bridge had dropped into the river!! Fortunately only eight men were seriously injured.

There were many of these accidents throughout the world before the answer was found. See if you can discover why the marching soldiers were involved in so many accidents.

If you think for a while about how you bounce up and down on a trampoline it may help you to find the answer!



things to look for in may

FUNGI.

After the first autumn rains and while the earth is still warm we are likely to discover mushrooms and toadstools. How many can you find? Do not forget to look closely at them.

Can you find any of the fungi that we have pictured on the front and back covers?

FRONT COVER: SHAGGY INK CAP, Coprinus comatus. The fruiting body is from two to six inches long, and up to two and a half inches wide. The outside has a shaggy look. If picked it soon changes to a black ooze; but if picked while fresh it may be cooked and eaten.

BACK COVER: 1. GLISTENING INK CAP, Coprinus micaceus. A small fungi up to one and a half inches tall, and two inches across. It is usually deeply fluted and grows in dense clusters near telegraph poles or buried wood. When collected it soon emits a black inky fluid. It is slightly poisonous.

2. PIXIE'S PARASOL, Mycena interrupta. This is a small fungi, often less than a half an inch across, and one inch high. It is fragile and usually blue in colour, with a small "foot" at the end of the stalk. It is found on old logs and sticks.

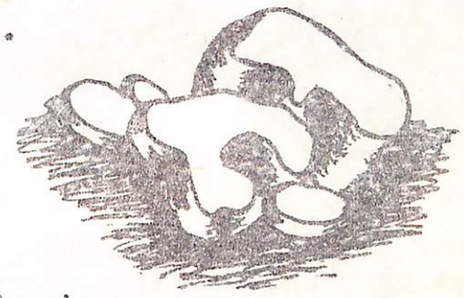
3. GHOST FUNGUS, Pleurotus nidiformis. This is a rather large fungus with smooth caps from two to six inches broad. During night-time it appears as a strange greenish light that is so bright at times that reading may be done from a newspaper held close to it. The spores are white.

4. HONEY FUNGUS, Armillaria mellea. This one varies, but it is usually reddish-brown with large clusters of fruiting bodies. The spores are white and it is usual to find growing on or near trees which it attacks and kills.

There are many types of fungi in Victoria; well over one hundred and twenty types. To help you to classify them, they can be arranged into two basic groups.

1. Ascomycetes or Sac-spore fungi.

Cup Fungi:-



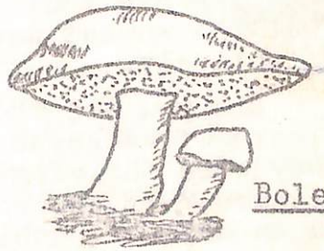
2. Basidiomycetes or Club-spore fungi: And this group can be divided into:

(a.) Hymenomycetes or Cap fungi.

(i) Those with gills; Agaricaceae or Agarics.

(ii) Those with large pores or tubes instead of gills.

Field Mushroom.



Boletus.

(b.) Gasteromycetes or Puff Balls.

in the

TO LOOK AT this wombat, you would not think that it would harm anyone or anything. And yet, since 1905, anyone who killed a wombat would get $1 for the scalp. The wombat was named a vermin because it would make short work of a rabbit-proof fence if he wanted to get through it.

And now the reward of $1 has been stopped; yet the wombat is still branded as a vermin. This means that if there is one wombat on your farm that is always walking along the same track and always making a hole in your fence in the same place, then you can call the Lands Department inspector to come and get rid of it. At least you will not be given $1 as a reward for it. Do you think that all this is fair enough?

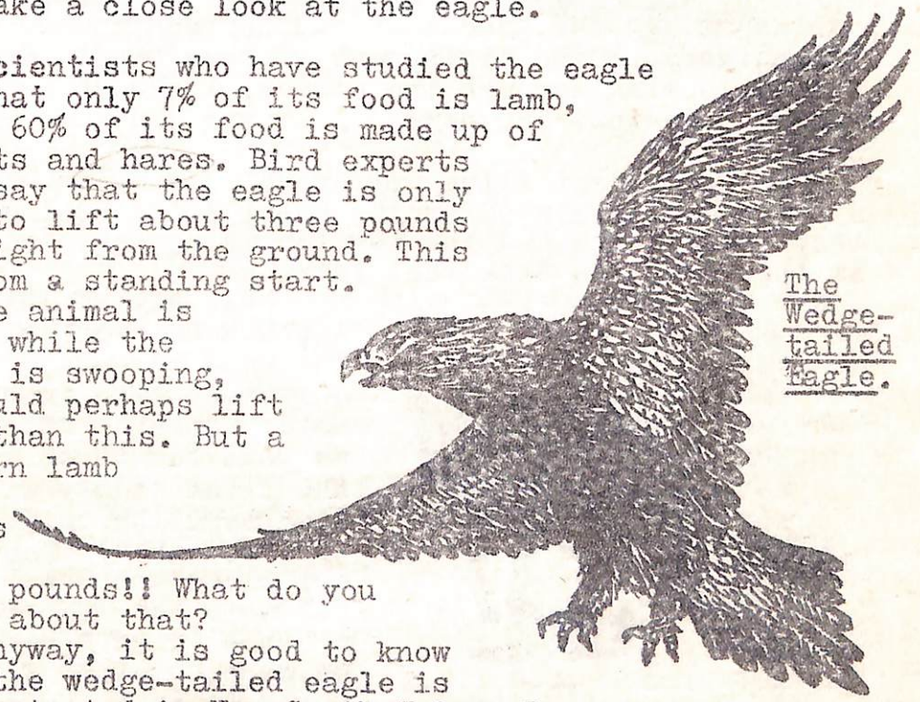
It is interesting though, because it shows how we must find the right compromise in conservation. You might like to make "Compromise in Conservation" a topic for discussion in class. By the way, in 1964 the Zoology Department at Monash University studied the life cycle of the wombat very closely and found that the wombat was keeping up its numbers very effectively.

Did you see the pictures in the newspaper showing flocks of kangaroos below a heading that said that they were thriving? What did you think of these pictures? If you counted thirty seven kangaroos living in an area of bushland, would you say from this that the kangaroo is keeping up its numbers? What would you think about it?

news

MUDDLED THINKING makes us believe so much that is not only wrong, but stupid. Many wedge-tailed eagles have been seen killing lambs - or was it that people thought that they saw them killing lambs? These lambs may have already been dead before the eagles got to them. In any case, if a person sees eagles killing lambs, is this enough reason to hunt eagles? Well that person may think so at first, but let us make him stop and take a close look at the eagle.

Scientists who have studied the eagle say that only 7% of its food is lamb, while 60% of its food is made up of rabbits and hares. Bird experts also say that the eagle is only able to lift about three pounds in weight from the ground. This is from a standing start. If the animal is taken while the eagle is swooping, it could perhaps lift more than this. But a newborn lamb weighs about eight pounds!! What do you think about that?



The Wedge-tailed Eagle.

Anyway, it is good to know that the wedge-tailed eagle is now protected in New South Wales, Tasmania, part of South Australia, and A.C.T. It will probably soon be protected in Victoria as well. On the other hand, Queensland still pays rewards for scalps, and in pastoral areas of Western Australia, in two shires in Victoria and in the Alice Springs Pasture Protection Area, it is a declared vermin.

letters

A TRIP TO AYERS ROCK.

The first leg of our journey was plain sailing along the Princes Highway. We drove through Mt. Gambier with its beautiful pine trees to Adelaide and then on to Port Augusta.

Here we boarded the train - car and all - for Alice Springs. We enjoyed the coolness of the sleeping compartments and the good food and the continuous music of the cutlery in the dining car of the "Ghan". On the train, looking through the window, I saw 56 rabbits, 1 snake, 3 eagles, 120 hawks, a lizard and some wild horses.

We arrived at Alice Springs at 3 A.M. on Wednesday, a day late. We stayed at the Hotel Alice Springs where they left a note and the key for us as there was nobody at the reception desk that late.

Brown Kangaroo:

Next day we left for Ayers Rock heading south. The road was rough, the only road sign in sight said: Adelaide 1062 miles. We lost two tyres within the first eighty miles. They were the only two spares we had! The nearest place where we could get some was 100 miles south - Kulgera Homestead. We were about to give up going to Ayers Rock as it meant a three hundred miles detour off the main road. However we did go and it was worth while; it was a memorable sight. We started climbing it early in the morning so we would not get the 150 degrees heat. When we nearly reached the top, we started to come down again. After we had lunch we

letters

drove around Ayers Rock and had a look at some of the caves and cave paintings. Then we went to the Olgas and walked to the gorge and back. We saw a brown kangaroo too.

At 5 P.M. on Monday 3rd. February, after ten days and 3644 miles, we were home again.

Eva Karlik, School No. 4863 Laburnum.

Ed. Thank you for this excellent letter Eva, you had a very good trip indeed.

This month we have a letter from three boys: Nicholas Sawyer, Stephen Gercovich and Glenn Yole, all from Mitcham Primary School. Here is their letter:

In the previous holidays my friend and I went frogging. While we were there we found a galah. When we approached it jumped to the ground using only one wing. Later on that day we came back with my friend's mother and a duffle coat. We managed to catch it and take it to another friend's home where he had a fairly big cage. It is now being looked after by all of us. Our friend's father told us that the lower half of the right-hand wing was broken. What can we do to help it?

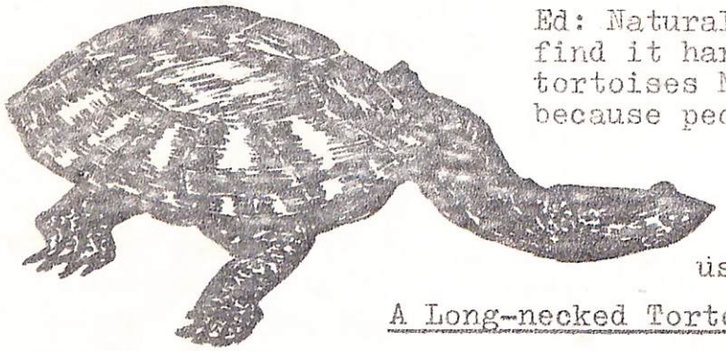
Ed: We got in touch with the R.S.P.C.A. Rescue Centre about your problem boys. Their office is in Burwood Highway near the corner of Middleborough Road. There they have a member of staff available for 24 hours of the day to receive animals in distress. Their telephone number is 288-5553, and if you get in touch with them they will be able to tell you whether it is best to take the bird along to them or whether you can look after it at home.

prize letter

The prize for this month goes to Neil Brown of Blackburn Lake Primary School. Neil's letter is good because it tells us a lot of interesting things about tortoises. As you will see from the letter, Neil has been watching the habits of this creature very closely.

Long Neck Tortoises: by Neil Brown, Grade 6.

I found a tortoise going across the road near Blackburn Lake. I fed him on meat and he eats worms, snails, small grasshoppers, tadpoles, water creatures and many other things. If a piece of meat is too big he rips it apart with his front claws. He burrows in soft dirt and sand when he hibernates. He can swim quite fast and he can stay under water for about a quarter of an hour. He will move rather slowly in cold weather. He does not like being handled very much and when he is on his back he will turn himself over with his neck.



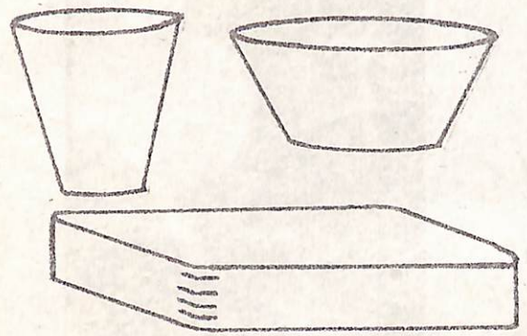
A Long-necked Tortoise.

Ed: Naturalists nowadays find it hard to identify tortoises Neil. This is because people have picked them up and taken them miles away from their usual districts.

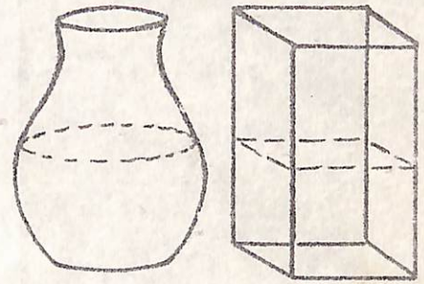
And now, a reply to Dean Gordon from Mr. Rogers. Dean wanted to know more about finding snails to feed his pet lizards. Mr. Rogers suggests that you have not yet used all of the snails in your garden Dean. If you hose it well at about 5 P.M., you may be surprized what you find there if you go out to search around at about 8 P.M. Generally, places with long grass are inhabited by snails.

housing specimens

AN AQUARIUM for plants and animals collected from ponds, creeks and ditches need not be expensive.



Good shapes for an aquarium: shallow, with a big surface open to the air.



Why are these bad shapes for an aquarium?

A GRADE PROJECT:-

MULTI-PURPOSE CAGE:

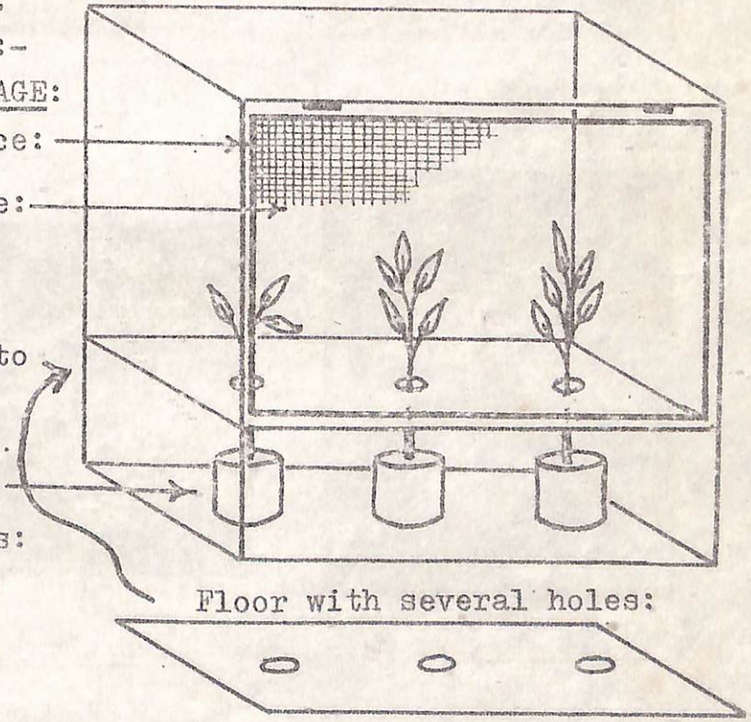
Hinged face:

Flywire:

Stands by itself or may be hooked onto a wall.

Space for water and soil containers:

For moths, caterpillars, snails, stick insects, etc.



Floor with several holes:

fungi

1. Glistening Ink Cap.

2. Pixie's Parasol.

3. Ghost Fungus.

4. Honey Fungus.