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## ALL THROUGH A KNOTHOLE

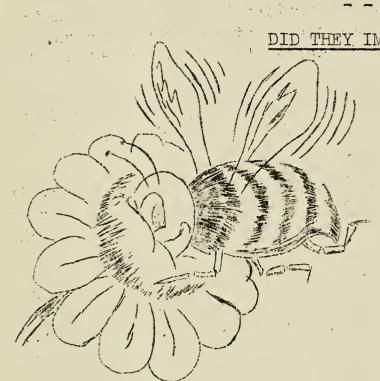
David Clancy, of Vanscoy, is richer by 125 pounds of comb honey and residents report seeing the largest single honey comb of their lives -all because there is a half-inch knothole in the wall of Clancy's woodhouse.

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Bees\_swarmed through the knothole last summer and stayed. They were there in force and as there seemed no way to salwage them, they were destroyed early in September, after which one side of the building was removed.

Clancy found a honey comb two feet wide, attached to the studding, five feet long and complete in width. Part of it had been used for brood rearing, but it was mostly filled with honey. A smaller sheet had been attached to the side wall, so it was broken off when the wall was taken down.

The inside had been lined with boards about four feet from the floor and above that, corded stove wood extended to the roof. About three feet above the lining the comb was attached to this wood as well as to the studding, and was well supported. Smaller sheets were spaced behind the large comb, and also the area between some of the sticks were being filled with comb.



DID THEY IMBIBE TOO FREELY?

By. C. C. Shaw

During the evenings of the third week in September, Mr. H.J. Biggs, of Yorkton, noticed that the tall yellow marigolds played host to a dozen bumblebees. As night fell, every marigold had one or more bees nestled deep in the centre of the flower. If the insects were knocked to the ground they seemed to be in a stupor for an hour or more and would then climb back up the stems of the plants. They were unable to fly. As the temperature hovered around 50 to 60 degrees, it would appear as though the unnatural actions of the bees was due to having imbibed too freely from

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the flower rather than to a drop in temperature.

A favorite practice of collectors of moths is called "sugaring." On warm, sultry evenings a mixture of stale beer and molasses or syrup is spread on tree trunks. An hour or so later the collector makes his rounds with the aid of a flashlight and collecting bottle and finds dozens of specimens have been stupified by having participated too freely.

Could it be that the nectar of the marigolds is of an intoxicating nature?

### THE MORMAN CRICKET

By E. Baker

Late this fall I had the good fortune to watch a Mormon Cricket at work in the prairie grass. For the most part it walked rather than hopped, carrying its large soft body well up from the ground, suspended between its strong wirey legs. As it marched along it was busy doing two other things -singing and eating. Its elevated wing covers vibrated continuously with scarcely a pause as it climbed to the top of low branches of tender green plants and munched at the leaves. As they usually climb to the top of a bush or weed to broadcast their call, I stood still, hoping I would be the chosen target for the display. One came on across the grass and over a deep wheel track to my very feet. It was baffled when it attempted to climb my slippery shoe heel -- so, with still unbroken song, it marched on into the grass in search of a safer perch.

### BOTANY

# THE FALL OF THE LEAF By A. J. Breitung

It is generally believed that lower autumn temperatures, frost and wind cause the leaves to fall. These are merely contributing factors. Various complicated physical and chemical changes have already taken place within the structure of the leaf itself so that when it is affected by external influences, it is prepared to fall.

The phenomena that separates the leaf from its stem is called "excision." A plane of cells or layer of separation has been formed which has cut sharply through the petiole or leaf stock, at or near its base. It is impossible for the leaf to detach itself unless this layer of tissue has been previously formed.

The dividing plane may be partially formed early in the growing season but it does not reach its full development until nearly the end of summer.

Shorter days, the lowering of soil and air temperatures result in the gradual lessening and final cessation of activity in the absorbent roots. Consequently the stream of sap decreases and ultimately is unable to reach the transpiring leaves.

The protoplasm withdraws from the leaves; the plastids that carried on their activity in the leaf cells have moved to stem or roots and by so doing, have deposited the essential products, such as starch, sugar, etc., in preparation for the following year. The leaves with their now empty cells can easily be sacrificed.

Frequently all the leaves have fallen even before freezing temperatures occur. However, the alternate freezing and thawing of the cell-sap hastens the process, but frost is not the sole agency.

The fall of the leaf is usually hastened by external influences such as wind, rain and frost, or in the absence of these, the weight of the leaf alone will help to bring about the complete excision.

The fall of the leaf, then, is not an accidental occurrence, arising simply from the fluctuations of temperature and the like, but a regular and vital process which commences with the first formation of the leaf and is completed only when it is no longer useful.

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### FLASH!!

Cliff Shaw, our newly elected president, was re-elected as president of the Yorkton Natural History Society for his sixth consecutive term, at the annual meeting, on November 21.

Congratulations to an ardent naturalist, who deserves both honours.

BOTANY

# FORESTRY

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By C. Stuart Francis, Torch River.

I wish to request everyong interested in the future well-being of our Province to plant as many trees next spring as it is possible to do, especially on the prairie and more open park country areas. I also ask them to refrain from cutting or destroying a single tree in all areas where trees are now growing naturally, unless it is absolutely necessary to do so in order to bring good land into cultivation, or for building sites for some other essential reason.

In locations where the land is stony or sandy or very hilly, it will be found much more profitable growing trees than for any other use. As is often the case at present, the removal of trees from such areas results in the production of nothing but weeds or bare, eroded soil.

I wish also to give a word or two of caution in the proposed planting of trees, and especially of evergreens. It might be a very good idea to find out just what is the present wild rabbit situation in your area and also the outlook for the next three or four years. Rabbits can soon ruin a newlyplanted plantation of trees, especially of spruce, pine, tamarac, etc. For this reason, the planting of evergreens or many species of the broad-leaved trees should be timed to coincide with the decrease in the rabbit population cycle. The only alternative is to fence the plantation with high-priced rabbit-proof wire, or to delay planting a few years until the peak rabbit population is passed again.

## AN INVESTMENT IN CONSERVATION

By C.S. Francis

Just over two years ago I purchased a quarter of land, which had a natural water runway cutting through it. The bottom of the runway was covered with coarse wild grass, a few willows and many old beaver dams, beaver runs and deep dry basins. The banks of the runway were grown up to second growth Aspen, Balm of Gilead and willow, but water was to be found in this runway for only a few weeks in the spring and early summer. In the condition that this runway was at the time of purchase, it was unfit for any profitable use. I gave the project a good looking-over and then decided to repair an old beaver dam on the lower end of the runway, near my south boundary.

I hired a big cat-tractor with bulldozer and repaired the old break in the dam. Some of the lower parts were built higher. The cost of this job was \$18.00. Now, two years later, I have a body of water several feet deep at the lower end, and from two to three hundred feet wide. Here, many species of waterfowl nested last spring. Here a family of beavers now live in a very large lodge which they constructed. Here muskrats can be seen swimming about at any time and here, also, are valuable fur-bearers, such as mink and fox. And this great change has come about by a modest \$18.00, "Investment in Conservation." This could be duplicated many hundreds of times in the park and wooded areas of Saskatchewan by anyone interested enough to give our wildlife a chance to help themselves, and at the same time helping to keep our land in the natural balance which prevailed before the coming of settlement.

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