

The moth expands about seven-eighths of an inch in width when the wings are spread. In colour it is dull gray, the fore wings overlaid with bands, streaks and spots of brown. In the middle of the upper margin of the front wings there is a rather large conspicuous whitish spot. In British Columbia, this year, the moths were of a distinct reddish colour, but all the eastern specimens noticed were of the gray form.

When an insect attacks forest trees, as the Spruce Bud-worm has done during the past summer, it is, of course, impossible to do anything in the way of applying remedial treatment, such as

is done for leaf-eating insects when attacking orchard or ornamental trees. Fortunately an outbreak of such a nature, however, is generally attended by natural parasites, which sooner or later restore the balance of nature. From observations made, and from parasites reared in the Division of Entomology from material collected in the Baskatong district, we have reason to hope that the Spruce Bud-worm will not next year continue to any serious extent its work of destruction. Undoubtedly, too, birds will help materially to reduce the numbers of the hibernating caterpillars.

## The British Columbia Timber Situation : Two Remedies.

(The JOURNAL presents herewith two views of the British Columbia timber situation, both from foresters of high reputation and recognized ability. Both these experts agree in recommending the modification of the royalty or stumpage dues. Prof. Roth suggests that, instead of an arbitrary tax on all timber alike, a proportion of the real stumpage value of the logs be levied; Dr. Clark would base the tax on the f. o. b. value of the mill product. In both cases what is plainly aimed at is to make the dues proportionate to the actual value of the wood.

As regards the licenses Prof. Roth emphatically advocates not only the non-extension of the present licenses but the complete abolition of the license in its present form, the transfer feature of the licenses being especially objectionable. Dr. Clark aims only at the modification of the terms of existing licenses, and, from the standpoint of the bona-fide investor and holder of timberlands, seems to have a good case.

Both are agreed that the reduction of taxation on licensed land is imperative, if forestry methods are to be introduced. It is interesting to note Dr. Clark's suggestion that the high ground rent is a method of paying for the timber on the instalment plan. Both agree that no general cutting regulations should be laid down, as, on account of widely varying conditions, a set of regulations which would suit one tract

of forest land would be altogether unsuited to another.

Prof. Roth's views are taken from an article in the "Vancouver World," while the expression of opinion credited to Dr. Clark is taken from his testimony before the provincial Forestry Commission).

### PROF. ROTH'S VIEWS.

Prof. Roth, who is the head of the department of forestry at the University of Michigan, gives a short summary of conditions in British Columbia as below, and then goes on to give his suggestions for a remedy of existing evils. He writes in part as follows:—

#### BRITISH COLUMBIA CONDITIONS.

- (1) The bulk (probably 80 per cent.) of all good forests of the province are held under license.
- (2) The greater part of these licenses are new, less than ten years old.
- (3) The men who now hold the timber limits paid but a small sum for them; they have not bought the merchantable timber, let alone the property.
- (4) It is fair to assume that they can easily log off enough timber to well repay them for what they paid, even within the 21-year limit and with present rental and royalty.
- (5) Most of the limits are held not to saw timber to supply an eager market, or help develop the country; they are held on speculation. Nearly every