exposure to destroy the eggs. The results obtained from this treatment were very gratifying—the bedbugs in all stages were wholly eradicated and the house furniture was not damaged in the slightest degree.

It is more than probable that the above noted temperatures were unnecessarily high, and that the superheating would have been equally effective if the temperature had been maintained between 120 F. and 130 F.

## SUNFLOWER INSECTS IN CALIFORNIA AND SOUTH AFRICA.

BY T. D. A. COCKERELL, BOULDER, COLORADO.

On August 16th, 1915, I had an opportunity to collect and study the insects on Helianthus lenticularis, the common wild sunflower, at Orange, California. The plants grow commonly by the roadside, where, at this season of the year, they are practically the only wild flowers to be seen. I was unable to find any characters on which to separate the Californian Sunflower from that of Colorado. There was a good deal of variability, thus three plants growing close together showed:

(a). Rays 20, short and broad, obtt se, 34 mm. long, 14 broad,

light orange, suffusedly deeper basally.

(b). Rays 21, acute, 29 mm. long, 7.5 broad, coloured nearly as in a.

(c). Rays 18, long, length 40 mm., width 9.5, entirely uniform deep orange. No wild H. lenticularis was noticed between San Francisco and Santa Barbara, but the plant was abundant by roadsides in the region round Los Augeles, and also about culti-

vated fields in the San Diego region.

The object of my investigations was in part to determine, if possible, whether H. lenticularis was really a native of California. On reviewing the insect fauna, it appears to show less special adaptation than that on the Rock/ Mountain sunflowers, and tends to support the view that the species has been introduced.

The sunflower fauna at Orange, as obtained on August 16th

was as follows:

## Hymenoptera

Halictus armaticeps Cresson. Six females, collecting pollen. Halictus nevadensis Crawford. Three females. March, 1916