SUMMARY

In the soldier and worker castes of Atta cephalotes (L.), there are between 60 and 75 median neurosecretory cells (predominantly A-cells with a small number of B-cells distributed between the A-cells). No lateral cells stained up with any of the three techniques used, although many large cells in various parts of the protocerebrum had dense cytoplasm and large nuclei with low chromatin content.

The axonal paths of the medial neurosecretory cells were traced to where they formed the nervi corporis cardiaci.

Only axons stained for neurosecretory material in the corpora cardiaca and no accumulations of neurosecretory material were seen. Unusually large neurons were visible in the posterior part of the corpora cardiaca. The corpora allata in Atta soldiers and workers are very much atrophied and seemed to be completely inactive.

The suboesophageal ganglion contains what are probably neurosecretory cells. The axons of these cells were seen to enter the neuropile of the ganglion but could not be traced further.