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ON THE PUPATION OF ANTS AND THE FEASIBILITY  
OF ESTABLISHING THE GUATEMALAN KELEP  
OR COTTON-WEEVIL ANT IN THE  
UNITED STATES.

IN a recent number of SCIENCE Dr. O. F. Cook publishes some of Mr. G. P. Goll's observations on the cocoon-formation of the kelep ant (*Ectatomma tuberculatum* Oliv.), apparently in the belief that similar observations have not been made on ants with enclosed pupæ. As a matter of fact, it has been known for some time that such ants bury their mature larvæ in the soil till they spin their cocoons and then, after some hours or days, unearth them and cleanse the outer surface of their envelopes. This habit has been repeatedly described for European species of *Formica*, especially by Wasmann.\* It is, of course, a necessary habit, as pointed out by Dr. Cook, since the larva must have some support for the threads spun from its sericteries. In default of earth, as when ants (species of *Camponotinae* or *Ponerinae*) are kept in glass nests of the Fielde pattern, the workers tear off bits of sponge or toweling to spread over the larvæ as a support for the cocoon. If such materials can not be obtained, or if the larvæ are much disturbed while spinning, they will form free pupæ. I have seen this repeatedly in the case of mixed colonies of our American amazons (*Polyergus breviceps*, *P. bicolor* and *P.*

\* See, e. g., his 'Vergleichende Studien über Ameisen- und Termitengäste,' Haag, 1890, p. 95 et al., up to his recent article: 'Zur Kontroverse über die psychischen Fähigkeiten der Ameisen,' *Natur und Schule*, Bd. 3, 1904.