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## DESCRIPTION OF SOME OF THE PREPARATORY STAGES OF PARNASSIUS SMINTHEUS, DOUBL., AND OF P. CLODIUS, MEN.

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### P. SMINTHEUS.

Mr. W. L. Curtis, in 1883, sent me many eggs of this species, laid by females confined with *Sedum*. All the butterflies were of the variety *Hermodur*, H. Edw., the females being very black. I related Mr. Curtis's observations in *Papilio JTL*, p. 158. The eggs were forwarded to Dr. H. S. Jewett, Dayton, Ohio, in default of ice here, and were placed in an ice box in that town, and so remained till late in Jan., '84. I received them 28th. Two days after, several of the eggs were found to have hatched, the day being warm, 55° Far. at noon. I gave the larvæ leaves of our wild *Sedum*, and also of some cultivated sorts that I had brought together for the purpose. Three days later the wild leaves were noticed eaten or nibbled a little, the other sorts not all. In former years, at least twice, I had had these larvæ out of egg, and they refused our *Sedum* and starved. In the present case, little holes were eaten on the upper side of leaf, half way through the fleshy part. Several larvæ died speedily, but a few did well. On 5th Feb'y, two were visibly stouter than the rest. On 6th, I happened on some larvæ feeding, this time at the edges of the leaves. On 8th, the two largest began to swell at second segment; on 10th, one of these died in the effort to moult, the time from the egg being 11 days. On 12th, the other larva passed 1st moult, at 13 days. On 15th, a third passed same moult; next day another, and I was fortunate in seeing the process. Before this moult I endeavored to make the larvæ disclose the tentacles on second segment, and did so in some cases by pressing on the dorsum of segments after 2 with flat side of a pin. Teasing with the point of the pin effected nothing. The tentacles were stubby and very short, a mere lump of brownish-yellow color, without prongs. It was rather a tentacle, than tentacles. On 18th, another passed 1st moult. By pressing on dorsum, the tentacles after first moult