irregular chambers. The colonies are rather small, comprising hardly more than 300–500 individuals, and therefore resemble colonies of certain species of *Formica* (*subpolita, munda, schaufussi*). Among the workers one always finds a few, sometimes less than a dozen, of the large, orb-headed individuals (Fig. 3) which characterize this subspecies. All the workers contain an abundance of formic acid, with which they seem to defend themselves in much the same manner as the species of *Formica*. A few of them, confined in a vial, are soon suffocated with their own secretions. Winged females were taken April 21 and 27.

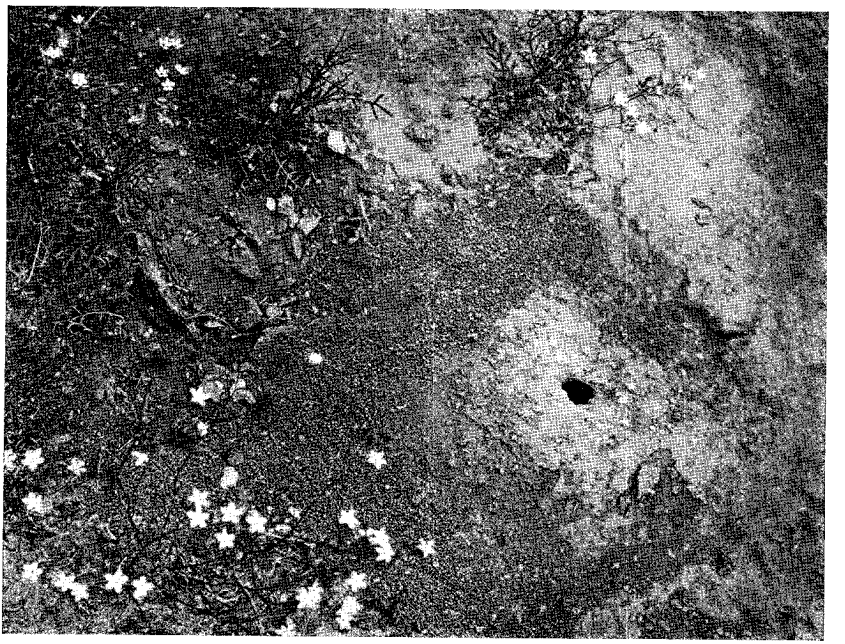

Fig. 13. Nest crater of *Myrmecocystus melliger mimicus* subsp. nov. in adobe soil. Tucson, Arizona. About ¼ natural size.

On first examining the colonies of *orbiceps* on the lime-stone hills near Austin, I was greatly impressed with the complete absence of anything resembling the repletes of the typical *melliger*. Again and again, at various seasons of the year and in different localities, I excavated nests, but was never able to observe the slightest tendency to gastric distension in any individuals of the colony. The ants were never seen climbing about on the low desert vegetation in search of aphid excrement or the sweet secretions of galls or flowers. It was not difficult, however, to ascertain the character