



FIGURE 28.—Part of the village of Subinal, 7 km west of El Progreso, showing the destruction of adobe structures near the Motagua fault trace. The fault is a broad zone of ground cracks that cuts diagonally across the lower right corner of the photograph (arrows).

placed the highway called Anillo Periferico (not shown on fig. 29) by as much as several centimetres, crossed an open field, cracked a masonry wall, and damaged at least two houses to the extent that they had to be vacated. In the open field the fault followed a small steepening in a gentle slope, which suggests that displacements of the same sense (down to the southeast) had occurred along the same line before 1976. In the same area were some deceptive artificial "scarps" resulting from shallow excavations, apparently to obtain topsoil. This fault was followed for about 0.5 km, but others nearby and parallel to it that we did not examine are much longer.

#### INCIENSO-SANTA ROSA ZONE

A zone of discontinuous faults (C, fig. 29) extends from the area north of Incienso Bridge (loc.

7, fig. 29) to the vicinity of Colonia Santa Rosa (loc. 8, fig. 29), a distance of more than 7 km. Individual ruptures in the zone are generally less than 1 km long; strikes generally cluster around N. 19° E. but vary widely. One fault in the zone displaced the highway northwest of Incienso Bridge about 4 cm, relatively up on the east side. An excellent exposure in the roadcut there shows that the 1976 displacement occurred on a preexisting fault zone that had earlier displacement in the same sense. The earlier displacement, as well as 1976 displacement, was apparent reverse movement, up on the side toward the deep canyon spanned by the bridge. The cumulative displacement was not measured but is clearly several times larger than the 1976 displacement. A paleosol is cut by the fault, and some evidence suggests that the topsoil may have been faulted before 1976 also; thus, it suggests geologically young, pre-1976 movement on the fault.