dimension of the order of twenty or thirty microns. There were no small particles, that is, no particles with a maximum dimension below 15 microns.

Following the first collection, additional collections were made, under similar conditions, over a period of eight days.

The accompanying table summarizes the conditions and copper counts for all these collections, including the first one described above. A number of the runs were for periods longer than three minutes, but the counts have, in these cases, been reduced to the three-minute equivalent. One collection showing several large copper indications, taken July 25, is ommitted from the table because it was damaged in course of a test for radioactivity by exposure of a nuclear track plate (with negative results) and a definite count could not be made.

The counts are exhibited in three size classifications, and attention is directed to the fact that particles in the smallest size group (1 to 15 microns) are practically absent from the early collections, while in the later collections, particles in the largest (30 microns) and middle (15 to 30 microns) groups have become quite scarce. At the same time, the counts have become quite large in the smallest size group.

SIGNIFICANCE OF RESULTS

If it were possible to say that particles giving a copper test are generally very rare in collections near ground level in this locality, the above facts would be highly significant. It happens, however, that collections have been made at Socorro over only a short period, and not much attention has been given to identification of copper compounds. However, after the copper indications had been found in the present series of collections, some collections were found on file that had been made on plain glycerin-gelatin on July 14, 1949. These were covered with the Saran film and rubeanic acid and ammonia were applied by diffusion through the film. A few copper indications were found, almost all the particles being in the 30 micron size group. Some other collections were made early in July that will be examined for copper when they are freed from other tests. In addition, occasional collections will be examined for copper in the future, and it may be possible eventually to add something to the information now presented.

CONCLUSIONS REGARDING COPPER

In view of the above facts, it seems very hazardous to draw any definite conclusion associating the copper-bearing particles collected with the fireball of July 24. There still is, however, a residuum of possibility of such associations when it is considered that particles of the smallest size group did not appear in large numbers until some 35 hours after the passage of the fireball.