reports. At Aguas Buenas they are said to have been small and spherical, melting very quickly after falling. Farther down the Bairo River, near where it is crossed by the military road, an eyewitness says:

> The stones were irregular; some being an inch or an inch and a quarter long, some angular or pointed, some round.

The same witness says he found hailstones sometime after the storm between the tobacco rows. Dr. Lugoviño says the stones at Caguas were disk like and melted very soon after reaching the ground. All speak of the manner in which the stones would rebound when first striking the ground.

Some idea of the excitement caused by this phenomenon among the natives may be imagined when it is remembered that there were persons in Caguas over eighty years old who had never seen hailstones. The more simple minded declared that it rained pieces of salt which were "mucho frio." Some were seen next day on the streets exhibiting pieces of stone which they declared were thrown down from the clouds. Specimens of this "petrified hail", to quote Mr. Thomson, were sent to this office, not from Caguas, but from another town, with the statement that they had fallen from the clouds.

The following is translated from La Democracia of April 14, a paper published at Caguas, Porto Rico, and refers to the storm of April 12:

> Day before yesterday, between 1 and 2 in the afternoon, there swept down upon this city a whirlwind, accompanied by heavy rain and some thunder. Some hail fell, and we are informed that on "La Mesa" (a small hill or mountain known locally as The Table), which is in this precinct, the country people saw traces of snow.
>
> As is seen, since the invasion (of the Americans) to the present time, even our climate has undergone changes, and we are presented with meteorological phenomena unknown and obsolete here. We are progressing.

On the next day (Monday, April 13) there was another hailstorm along the valley of the Loiza River about the same hour of the day. The following extract from the San Juan News of April 14 is all the information obtainable relative to this storm, excepting that Dr. Lugoviño said he saw hail fall in Caguas on Monday about 2 p. m.

Yesterday, about noon, there was a terrific storm along the Rio Loiza Valley, between Caguas and Carolina, during which hailstones fell thick and fast. The ground was fairly covered by them and the natives were greatly excited over the event. There have been hailstorms before, but they are by no means usual. The river Loiza rose five or six feet in the four hours it lasted.

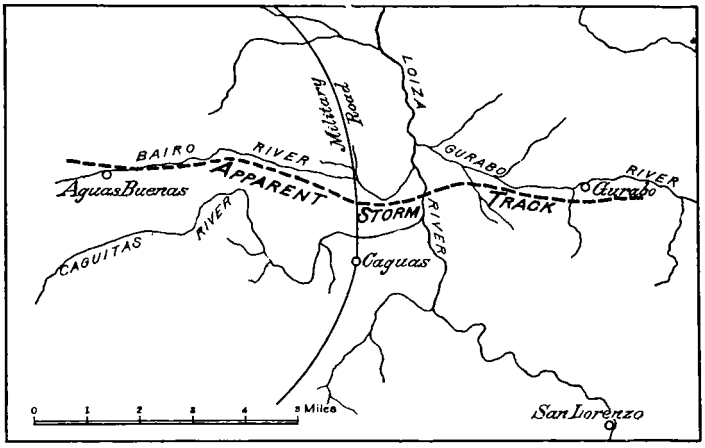

FIG. 1.—Map showing track of hailstorm which occurred on Sunday, April 12, 1903, in Porto Rico.

STAGES OF THE MISSISSIPPI RIVER AT VICKSBURG.

Communicated by Mr. W. S. Belden, Section Director, dated Vicksburg, Miss., June 15, 1903.

The following table of maximum and minimum river stages, in feet, at Vicksburg, Miss., by months, covers the years 1872 to 1903, inclusive. The gage is that established and maintained by the Engineer Corps, U. S. Army, and is in the southern part of the city. The readings are as made by U. S. Weather Bureau river observers. The zero of the gage has never been changed. The danger line is 45 feet. The highest river stage, 52.5 feet, occurred at 1 p. m., April 16, 1897. The lowest river stage, —6.5 feet, occurred on November 13–14, 1895.

Maximum and minimum river stages, in feet, at Vicksburg, Miss., from 1872–1903, inclusive.

Year.	January.		February.		March.		April.		May.		June.		July.		August.		September.		October.		November.		December.		Year.	
	Highest.	Lowest.	Highest.	Lowest.	Highest.	Lowest.	Highest.	Lowest.	Highest.	Lowest.	Highest.	Lowest.	Highest.	Lowest.	Highest.	Lowest.	Highest.	Lowest.	Highest.	Lowest.	Highest.	Lowest.	Highest.	Lowest.	Highest.	Lowest.
1872	13.6	— 0.5	10.9	2.0	20.0	12.0	39.3	19.3	39.5	25.0	32.8	30.4	27.2	17.7	25.2	11.0	10.8	6.0	6.0	2.8	4.8	1.8	4.1	— 1.3	39.5	— 1.3
1873	18.4	2.4	37.4	15.8	39.7	29.6	39.9	29.8	40.6	39.1	40.4	33.0	32.5	23.7	23.0	9.4	9.2	4.4	4.3	2.7	10.6	3.0	35.5	8.2	40.6	2.4
1874	34.9	18.0	35.8	29.0	43.0	36.6	45.6	43.1	45.7	43.1	42.8	22.4	22.3	12.1	12.8	6.9	11.7	5.3	9.0	5.5	6.1	3.0	11.3	6.5	45.7	3.0
1875	25.0	8.1	29.8	9.0	41.4	16.7	43.0	41.9	41.8	35.6	34.8	26.0	38.5	28.9	40.9	38.7	40.3	18.7	22.1	9.7	16.0	8.0	25.0	16.8	43.0	8.0
1876	38.8	20.8	42.3	39.0	42.3	38.8	44.3	42.0	44.8	44.2	44.1	37.8	40.0	38.3	38.2	21.0	25.6	18.3	25.0	11.5	14.4	11.4	13.1	3.9	44.8	3.9
1877	33.5	2.1	36.2	19.6	32.8	14.8	41.2	32.9	41.8	40.8	40.8	37.1	39.6	25.5	25.4	11.3	.....	.....	.....	.....	20.1	10.9	26.4	19.6	41.8	2.1
1878	33.0	24.3	36.6	29.5	41.0	37.0	40.1	29.3	40.6	37.4	39.4	35.5	35.8	21.7	22.4	17.7	.....	.....	.....	.....	.....	.....	28.8	18.5	41.0	.....
1879	37.0	.....	39.5	33.5	34.0	27.6	35.3	33.8	33.3	15.4	18.9	14.8	20.8	15.8	16.3	12.4	18.4	7.0	6.8	3.3	13.8	3.8	30.4	13.3	39.5	3.3
1880	39.9	30.9	40.0	27.3	42.9	39.0	43.2	41.8	41.7	25.1	26.5	22.5	34.3	24.8	23.8	9.3	14.8	9.4	9.9	7.7	17.7	7.9	31.8	13.1	43.2	7.7
1881	30.3	9.0	40.8	28.6	41.8	40.7	41.3	40.9	41.6	39.8	39.5	25.0	31.9	18.3	19.9	6.4	6.3	3.7	22.2	6.3	34.3	22.8	34.9	22.1	41.8	3.7
1882	42.8	34.6	44.7	42.9	48.8	44.5	47.1	43.0	42.8	41.2	41.5	41.2	41.0	36.3	35.1	17.6	17.1	12.8	13.9	8.9	13.6	8.5	13.6	7.6	48.8	7.6
1883	22.6	11.7	42.2	24.6	43.4	42.3	43.8	42.3	42.3	37.6	39.8	38.4	39.6	31.4	30.3	14.2	13.7	3.4	11.6	2.9	23.1	10.8	29.8	18.5	43.8	2.9
1884	36.2	23.9	44.9	30.7	49.0	45.0	47.7	45.2	45.8	42.0	41.3	30.1	29.6	19.3	18.7	9.1	9.8	5.1	18.0	5.1	14.1	5.7	15.9	4.8	49.0	4.8
1885	42.3	17.2	42.4	28.6	34.6	22.5	37.0	28.3	40.9	28.8	33.1	27.2	33.7	19.8	18.5	13.2	21.9	12.0	18.2	4.9	23.2	7.9	20.0	10.9	42.4	4.9
1886	28.1	16.9	37.7	23.7	39.0	24.2	43.7	28.1	44.2	41.9	41.9	25.4	30.3	13.8	13.5	7.9	8.3	4.5	4.5	0.6	8.5	0.0	20.5	6.3	44.2	0.0
1887	17.3	8.0	41.9	18.0	44.7	42.1	44.6	22.1	38.2	25.9	24.9	15.9	18.9	7.5	7.1	1.5	3.1	— 0.1	2.8	— 1.8	—2.0	— 3.9	5.0	— 3.5	44.7	— 3.9
1888	26.3	— 1.3	24.8	19.7	30.8	24.4	44.2	32.5	43.6	27.4	34.9	28.8	30.0	25.5	24.1	12.0	25.0	14.1	13.7	2.4	28.9	8.0	27.2	9.7	44.2	— 1.3
1889	33.8	13.1	33.2	20.8	33.6	25.5	30.2	23.0	26.1	13.1	33.4	19.2	34.4	21.3	23.5	12.0	11.7	6.8	8.0	— 0.8	26.0	— 0.8	28.7	19.0	34.4	— 0.8
1890	41.5	19.1	46.2	42.0	48.0	46.3	49.1	46.3	48.5	41.4	41.3	28.9	28.5	13.0	12.8	9.0	21.6	10.2	22.9	13.0	26.6	16.4	26.5	10.7	49.1	9.0
1891	33.6	11.8	43.2	28.2	48.0	43.5	48.1	47.3	47.3	18.5	29.3	17.5	29.4	17.7	21.1	12.8	17.5	3.8	3.4	— 1.2	3.9	— 2.5	15.5	4.8	48.1	— 2.5
1892	28.9	16.6	32.8	21.1	33.6	28.0	47.2	32.9	48.4	47.4	48.4	46.6	46.4	37.7	36.6	11.6	11.2	5.3	5.2	— 1.0	2.6	— 0.1	23.4	3.1	48.4	— 1.0
1893	22.4	6.3	38.0	6.2	42.4	38.3	40.8	30.0	48.3	41.4	46.7	42.3	41.4	15.0	14.3	4.2	5.2	1.2	4.0	0.3	3.6	0.4	7.8	0.8	48.3	0.3
1894	17.4	6.2	40.3	16.3	40.8	32.8	40.9	34.5	35.8	24.4	25.8	17.2	17.0	7.4	7.2	0.8	2.2	— 0.2	1.2	— 4.2	—4.2	— 5.3	5.1	— 4.0	40.9	— 5.3
1895	29.1	1.0	28.5	1.4	30.6	1.4	31.7	19.1	24.1	10.2	12.1	6.7	19.1	9.3	17.8	3.4	9.3	1.7	0.8	— 5.2	—4.9	— 6.5	21.8	— 4.6	31.7	— 6.5
1896	28.2	9.0	32.6	9.1	30.0	17.7	39.0	28.6	27.4	17.5	33.4	19.8	27.2	18.5	30.1	12.6	12.2	1.3	7.8	2.1	7.5	1.7	19.4	7.3	39.0	1.3
1897	26.7	9.7	33.3	18.0	49.4	32.8	52.5	49.2	51.9	44.2	43.4	18.1	24.0	15.2	20.6	8.8	8.6	0.9	0.2	— 2.9	—0.5	— 3.4	7.9	— 0.8	52.5	— 3.4
1898	39.2	7.9	43.0	26.0	38.5	19.2	49.4	39.4	47.8	41.9	42.0	27.8	27.0	13.4	25.8	13.5	20.5	8.6	12.3	9.5	17.0	11.6	16.5	9.4	49.4	7.9
1899	39.6	15.2	39.6	28.5	44.8	29.8	47.3	45.0	45.6	37.4	37.1	27.4	26.7	20.7	20.7	10.3	9.6	2.3	2.2	— 1.0	2.2	— 1.6	12.7	2.0	47.3	— 1.6
1900	20.1	4.6	30.4	12.3	38.0	27.9	36.6	28.9	34.0	17.7	28.1	17.5	32.5	13.8	17.0	4.3	7.3	2.4	9.6	2.9	18.0	6.7	30.3	13.0	38.0	2.4
1901	23.9	10.9	21.6	14.4	32.0	7.9	39.9	31.2	41.5	21.9	27.8	19.2	24.8	9.0	18.6	4.3	20.4	6.4	10.5	1.0	0.8	— 2.2	21.6	— 2.3	41.5	— 2.3
1902	25.2	6.6	31.4	8.3	40.8	12.9	41.2	33.3	32.2	14.5	25.4	17.4	29.6	19.3	27.9	13.7	16.8	5.8	17.2	4.8	13.1	5.5	37.9	13.3	41.2	4.8
1903	39.8	23.0	44.2	21.0	51.8	44.3	51.3	45.1	45.0	30.7	43.1	31.4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	51.8	.....