

69. *Fracture, malunion of, upper and lower extremity, shortening of lower extremity.*—These defects were noted in 21,338 men. The distribution of these cases among the different States is shown in Table 69 and Plate XXXVII, figure 1. From these figures it appears that certain States of the Northwest show an excess of fractures of the appendages and their consequences, namely, Utah, Washington, Wyoming, also Oregon, California, and Nevada. On the other hand, the more densely populated States of the East, like Maryland, Indiana, New York, New Jersey, and Wisconsin, have, for the most part, a relatively small ratio of cases, but to this rule Massachusetts is particularly an exception. We may conclude, then, that in the Western States, owing to the hazardousness of many of the occupations engaged in and the difficulty of securing proper surgical aid, there is an exceptionally large amount of defective appendages due to their having been broken and badly set, and the conditions are better in the eastern part of the country.

TABLE 69.—Grand total for fracture, malunion of, upper and lower extremity and other; shortening of lower extremity with ratio per 1,000 men.

State.	Number of cases.	Ratio per 1,000.	State.	Number of cases.	Ratio per 1,000.
Utah.....	145	12.31	New Mexico.....	79	7.74
Washington.....	380	10.68	Vermont.....	65	7.72
Wyoming.....	69	10.39	Georgia.....	490	7.68
Virginia.....	571	10.27	Alabama.....	396	7.64
Mississippi.....	385	10.23	Michigan.....	753	7.61
Rhode Island.....	142	9.80	Illinois.....	1,358	7.59
Oregon.....	155	9.69	South Dakota.....	157	7.55
California.....	778	9.65	Nebraska.....	215	7.30
West Virginia.....	369	9.48	Iowa.....	499	7.28
Florida.....	221	9.15	Delaware.....	36	7.13
Nevada.....	30	9.11	Missouri.....	608	7.11
South Carolina.....	357	9.06	Wisconsin.....	448	7.09
North Carolina.....	493	8.90	North Dakota.....	123	6.89
Ohio.....	1,110	8.77	New Jersey.....	512	6.75
Tennessee.....	534	8.73	New York.....	1,752	6.75
Maine.....	170	8.58	Indiana.....	477	6.67
Massachusetts.....	774	8.47	Kentucky.....	420	6.58
New Hampshire.....	71	8.34	Maryland.....	238	6.39
Texas.....	972	8.19	Arkansas.....	268	6.28
Colorado.....	184	8.18	Arizona.....	51	6.15
Montana.....	224	8.18	District of Columbia.....	71	6.15
Idaho.....	102	8.16	Minnesota.....	514	6.09
Louisiana.....	417	8.06	Alaska.....	6	4.92
Pennsylvania.....	1,618	7.99	State not specified.....	470	4.95
Connecticut.....	284	7.92			
Oklahoma.....	478	7.86	Total.....	21,338	7.75
Kansas.....	299	7.77			

70. *Upper extremity, loss of whole or part of.*—The hands and arms are so necessary to so many kinds of work that the societies are interested in learning how many men of military age have been deprived of the upper extremity in whole or in part, without reference to the cause of loss. Out of approximately two and a half million men, 5,326, or nearly 2 per 1,000, were thus mutilated. The distribution of such mutilations is shown in Table 70 and Plate XXXVII, figure 2. No clear geographical or racial relations of the loss comes out from inspection of these charts. There is a partial exception to this statement, however, in that most of the Southern States stand in

the upper part of the list, such as Louisiana (2.8 per mille), North Carolina (2.6 per mille), Mississippi (2.6 per mille); Virginia (2.4 per mille), South Carolina (2.4 per mille), Texas (2.4 per mille), Georgia (2.4 per mille); Tennessee (2.4 per mille), Florida (2.2 per mille). The question may be raised whether insufficient protection is afforded to men in the South who may be engaged in a hazardous occupation imperiling the arms.

TABLE 70.—Grand total for upper extremity, loss of whole or part of, with ratio per 1,000 men.

State.	Number of cases.	Ratio per 1,000.	State.	Number of cases.	Ratio per 1,000.
Vermont.....	42	4.99	Missouri.....	153	1.79
Washington.....	101	2.84	Rhode Is. and.....	26	1.79
Louisiana.....	145	2.80	Colorado.....	39	1.73
North Carolina.....	145	2.62	Michigan.....	168	1.70
Pennsylvania.....	529	2.62	Oregon.....	27	1.69
Mississippi.....	97	2.57	Alabama.....	85	1.64
West Virginia.....	95	2.44	Alaska.....	2	1.64
Virginia.....	135	2.43	Massachusetts.....	149	1.63
South Carolina.....	95	2.41	Iowa.....	108	1.58
Texas.....	286	2.41	Kansas.....	60	1.56
Georgia.....	152	2.38	Maryland.....	57	1.53
Tennessee.....	145	2.37	New Hampshire.....	13	1.53
New Mexico.....	24	2.35	Wyoming.....	10	1.51
Kentucky.....	145	2.27	New Jersey.....	110	1.45
Wisconsin.....	140	2.22	Utah.....	17	1.44
Indiana.....	157	2.20	Nebraska.....	41	1.39
Ohio.....	313	2.19	New York.....	350	1.36
Florida.....	52	2.16	South Dakota.....	25	1.20
Oklahoma.....	130	2.14	Montana.....	29	1.06
Minnesota.....	146	2.03	Idaho.....	19	1.04
Illinois.....	352	1.96	District of Columbia.....	11	.95
California.....	156	1.93	Arizona.....	6	.72
Connecticut.....	69	1.92	Delaware.....	3	.59
Maine.....	38	1.92	State not specified.....	16	.17
Arkansas.....	80	1.87			
North Dakota.....	33	1.85			
Nevada.....	6	1.82			
			Total.....	5,326	1.93

71. *Loss of whole or part of lower extremity.*—The Army is interested in knowing what proportion of men of military age are unable to walk owing to the loss of the whole or part of the legs. It appears that 8,796 men were placed in this category, or 3.2 per thousand. Defectives of this type are more apt to be from Southern States. Thus, in the upper half of the list are the States of Virginia, Louisiana, North Carolina, Tennessee, Texas, and Florida, whereas only South Carolina, Alabama, Mississippi, and Georgia lie in the lower half of the list. On the other hand, the mining States of West Virginia and Pennsylvania stand at the very head of the list. Here again, the question may be raised whether sufficient safeguards are employed in the Southern States to prevent the loss of appendages and whether there is special danger to appendages in the process of mining.