

BROKEN WIRES AND POLES.

There were 1,517 broken wires reported by electric-supply authorities, with 126,097 miles of conductor erected. The corresponding figures for the previous year were 1,386 broken wires and 119,432 miles of conductor in use.

Trees were again the principal cause of the breaks, and accounted for 27 per cent. of the total, as against 29·4 per cent. for 1938.

The following table has been prepared to show the various factors which have been reported as responsible for broken wires during the past six years :—

CAUSES OF BREAKAGES OF WIRES.

NOTE.—Percentages less than 1 per cent. of total are not shown.

Reported Causes.	Total for Six Years.	1934.		1935.		1936.		1937.		1938.		1939.	
		Number.	Per cent- age of Total.	Number.	Per cent- age of Total.	Number.	Per cent- age of Total.	Number.	Per cent- age of Total.	Number.	Per cent- age of Total.	Number.	Per cent- age of Total.
Trees	2,949	262	27	319	27	1,341	47	370	28	255	29	402	27
Wires contacting	1,585	172	18	206	17	361	13	367	28	188	22	291	19
Gales	723	110	11	108	9	171	6	105	8	51	6	178	12
Binder-failure	794	128	13	154	13	163	6	105	8	79	9	165	11
Insulator-failure	223	13	1	4	..	13	..	52	4	40	5	101	7
Poles broken	266	39	4	34	3	89	3	36	3	19	2	49	3
Poles hit by vehicles	232	39	4	39	3	40	1	48	4	32	4	34	2
Corrosion	97	15	2	11	..	5	..	15	1	11	1	40	3
Short circuit	47	..	..	..	..	..	..	1	..	13	2	33	2
Roofing-iron	139	4	..	..	..	90	3	12	..	8	..	25	2
Birds	92	9	1	13	1	11	..	18	1	20	2	21	1
Joint failure	140	12	1	30	2	22	..	29	2	28	3	19	1
Overstress	50	..	..	4	..	12	..	16	1	4	..	14	..
Snow	479	..	..	111	9	348	12	5	..	2	..	13	..
Span-breaks	13	..	..	..	..	..	..	..	..	..	..	13	..
Vibration	126	1	..	30	3	44	2	22	2	17	2	12	..
Blasting	31	1	..	7	..	6	..	2	..	7	..	8	..
Lightning	35	2	..	7	..	11	..	7	..	2	..	6	..
Contacting earth-guard	28	6	..	3	..	7	..	2	..	5	..	5	..
Opossums	9	1	..	..	..	1	..	1	..	1	..	5	..
Bad workmanship	85	25	3	19	2	17	..	6	..	10	1	8	..
Jumper-failure	18	1	..	4	..	2	..	6	..	1	..	4	..
Haystacker	41	9	1	10	..	5	..	5	..	5	..	7	..
Radio-mast	39	5	..	12	1	12	..	4	..	2	..	4	..
Football	4	..	..	..	..	1	..	..	..	..	..	3	..
Threshing-mill	10	2	..	1	..	1	..	3	..	..	..	3	..
Crane	9	..	..	2	..	..	..	1	..	3	..	3	..
Kite	8	..	..	3	..	1	..	..	..	2	..	2	..
Falling pole	3	1	..	..	..	..	..	..	..	..	..	2	..
Loaded lorry	5	..	..	2	..	1	..	..	..	..	..	2	..
Wire over line	13	7	..	3	..	1	..	..	..	..	..	2	..
Falling chimney	2	..	..	..	..	1	..	..	..	..	..	1	..
Ladder	1	..	..	..	..	..	..	..	..	..	..	1	..
Scrub fire	27	1	..	4	..	2	..	3	..	14	2	3	..
House fire	32	15	2	..	..	2	..	13	1	1	..	1	..
Flood	7	..	..	2	..	3	..	..	..	..	..	2	..
Rifle-shot	7	..	..	..	..	..	..	..	..	6	..	1	..
Landslip	7	..	..	4	..	1	..	1	..	..	..	1	..
Acroplane	5	2	..	..	..	1	..	1	..	..	..	1	..
Ship's mast	6	..	..	..	..	2	..	1	..	3	..	..	..
Cut by slasher	11	2	..	2	..	2	..	4	..	1	..	..	..
Earthquake	26	26	3	..	..	..	..	..	..	..	..	..	..
Tram-trolley pole	14	1	..	3	..	..	..	7	..	3	..	..	..
Failure under-ground cable	4	2	..	2	..	..	..	..	..	..	..	..	..
Excessive sag	1	1	..	..	..	..	..	..	..	..	..	..	..
Straw blown on line	1	1	..	..	..	..	..	..	..	..	..	..	..
Contact with roof	6	2	..	1	..	..	..	3	..	..	..	..	..
Frost	17	11	1	..	..	1	..	1	..	4	..	..	..
Broken by workmen	2	1	..	1	..	..	..	..	..	..	..	..	..
Cross-arm burnt or broken	4	4	..	..	..	..	..	..	..	..	..	..	..
Contact with stay wire	8	1	..	3	..	1	..	3	..	..	..	..	..
Animals rubbing poles	3	2	..	..	..	1	..	..	..	..	..	..	..
Fouled by excavator	1	1	..	..	..	..	..	..	..	..	..	..	..
Sea erosion	2	1	..	..	..	1	..	..	..	..	..	..	..
Contact with pole	9	..	..	3	..	2	..	4	..	..	..	..	..
Contact with P. and T. lines	12	..	..	1	..	10	..	1	..	..	..	..	..
Contact with P.W.D. lines	6	..	..	..	..	3	..	3	..	..	..	..	..
Fouled by building material	15	4	..	1	..	8	..	2	..	..	..	..	..
Storm damage to buildings	26	..	..	..	..	19	..	7	..	..	..	..	..
Unknown	179	31	3	37	3	17	..	33	2	29	3	32	2
Totals	..	973	..	1,200	..	2,853	..	1,325	..	866	..	1,517	..

Total breakages reported for six years = 8,734, of which trees were responsible for 33·75 per cent.