

DEPARTMENT OF SCIENTIFIC AND INDUSTRIAL RESEARCH

AND

FIRE OFFICES' COMMITTEE

JOINT FIRE RESEARCH ORGANIZATION

STATISTICAL ANALYSIS
OF
REPORTS OF FIRES ATTENDED BY
FIRE BRIGADES IN THE UNITED KINGDOM
DURING 1958

(Prepared by the Joint Fire Research Organization for
the Home Office and the Scottish Home Department)

Lab. File 1/1

March 1960

19, Cornwall Terrace

Regent's Park

London, N.W.1

(Telephone: HUNter 1212)

PREFACE

Tables of statistics relating to fires attended by National and Local Authority Fire Services in the United Kingdom have been compiled annually since 1946. Summary tables have been published in the Annual Reports of the Joint Fire Research Organization.

With the agreement of the Home Office, the Scottish Home Department and the Ministry of Home Affairs, Northern Ireland the tables for 1958 contained in this volume are generally available to interested persons.

By arrangement with the Home Office, the Scottish Home Department, the Ministry of Home Affairs, Northern Ireland and Local Authorities, a report is received on every fire attended by a Local Authority Fire Brigade in the United Kingdom. The tables are compiled from these reports. They do not give information on all the fires that occur, but they give an accurate assessment of all the fires to which Fire Brigades are called.

For this statistical analysis a one-in-four sample of the reports received in 1958 has been used. Details of the method of selecting the sample, and information on the possible sampling errors involved, are given in the Appendix.

The tables are divided into four sections. The first section provides a summary of the United Kingdom figures for the years 1954 - 1958. More detailed statistical information for 1958 is given in sections II, III, and IV for England and Wales, Scotland, and Northern Ireland respectively.

The monthly distributions of fire incidents are given diagrammatically in Figures 1 and 2. Figure 3 indicates the changes in annual incidence of fire in various indoor hazards for the period 1949-1958.

Where percentages are given these have been rounded up to the nearest tenth so that the sums of the constituents are not always equal to 100.

DEPARTMENT OF SCIENTIFIC AND INDUSTRIAL RESEARCH AND FIRE OFFICES' COMMITTEE
JOINT FIRE RESEARCH ORGANIZATION

Statistics of fires attended by Fire Brigades in the United Kingdom

INDEX

Section I: Fires attended by Fire Brigades in the United Kingdom 1954-1958

Table		Page
1	Hazard in which fire started	1
2A	Supposed causes of fires in buildings	2
2B	Supposed causes of fires other than those in buildings	3
3A	Method of extinction of fires in buildings	4
3B	Method of extinction of fires other than those in buildings	5
4	Casualties in fires	6
Fig.1	Fires in buildings classified by the month in which they occurred	7
Fig.2	Fires other than those in buildings classified by the month in which they occurred	8
Fig.3	Fires in buildings, according to occupancy.	9

Section II: Fires attended by Fire Brigades during 1958 in England and Wales

Table		Page
1	Method of calling Fire Brigades to fires	11
2	Hazard in which fire started	16
3	Hazard in which fire started classified according to Fire Brigade	20
4	Supposed cause of fires	24
5A	Supposed cause of fires in buildings in relation to hazard in which fire started	26
5B	Supposed cause of fires other than those in buildings in relation to hazard in which fire started	30
6	Material first ignited in fires	32
7A	Material first ignited in fires in buildings in relation to supposed cause	35
7B	Material first ignited in fires other than in buildings in relation to supposed cause	37
8	Method of extinction of fires	39
9	Behaviour of sprinkler systems at fires	40
10	Persons rescued or escaped by emergency means from fires	41
11	Nature of injuries of casualties in fires	42
12	Fires classified by the month in which they occurred	43

Section III: Fires attended by Fire Brigades during 1958 in Scotland

Table		Page
1	Method of calling Fire Brigades to fires	44
2	Hazard in which fire started	45
3	Hazard in which fire started classified according to Fire Brigade	49
4	Supposed cause of fires	50
5A	Supposed cause of fires in buildings in relation to hazard in which fire started	52
5B	Supposed cause of fires other than those in buildings in relation to hazard in which fire started	56
6	Material first ignited in fires	58
7A	Material first ignited in fires in buildings in relation to the supposed cause	61
7B	Material first ignited in fires other than those in buildings in relation to the supposed cause	63
8	Method of extinction of fires	65
9	Behaviour of sprinkler systems at fires	66
10	Persons rescued or escaped by emergency means from fires	67
11	Nature of injuries of casualties in fires	68
12	Fires classified by the month in which they occurred	69

Section IV: Fires attended by Fire Brigades during 1958 in Northern Ireland

Table		Page
1	Method of calling Fire Brigades to fires	70
2	Hazard in which fire started	71
3	Hazard in which fire started classified according to Fire Brigade	75
4	Supposed cause of fires	76
5A	Supposed cause of fires in buildings in relation to hazard in which fire started	78
5B	Supposed cause of fires other than those in buildings in relation to hazard in which fire started	80
6	Material first ignited in fires	81
7A	Material first ignited in fires in buildings in relation to the supposed cause	83
7B	Material first ignited in fires other than those in buildings in relation to the supposed cause	84
8	Method of extinction of fires	85
9	Behaviour of sprinkler systems at fires	86
10	Persons rescued or escaped by emergency means from fires	86
11	Nature of injuries of casualties in fires	87
12	Fires classified by the month in which they occurred	88

SECTION I

Table 1

HAZARD IN WHICH FIRE STARTED

Reports from Fire Brigades in the United Kingdom, 1954-1958

Hazard in which fire started	No. of fires				
	1954	1955	1956	1957	1958
Fires in buildings					
Industrial and agricultural premises	8 290	9 408	9 564	9 507	9 096
Gas, water, electricity and sewage undertakings	212	192	228	204	176
Transport and communications	1 722	2 148	1 940	1 966	2 124
Commercial premises	3 508	3 872	3 808	3 834	3 776
Offices, Government and other	596	636	568	542	628
Navy, Army, Air Force and Fire Service establishments	442	432	440	426	452
Professional establishments, public institutions	1 740	1 816	1 916	1 906	1 860
Public of public entertainment	532	616	748	753	744
Private residential houses and flats	22 808	23 520	24 468	22 767	24 332
Clubs, hotels, restaurants, public houses	2 516	2 888	2 560	2 813	2 812
Other buildings	3 604	4 964	5 224	5 976	5 992
TOTAL FIRES IN BUILDINGS	45 970	50 492	51 464	50 694	51 992
Fires other than those in buildings					
Crops, standing or stooked, ricks, stacks, etc.	1 808	3 596	1 484	1 974	1 316
Grassland, heathland, railway embankments	14 940	35 636	38 680	34 160	21 904
Woods, forests, plantations	432	724	1 352	1 703	412
Other hazards of agriculture and forestry	2 862	5 572	5 256	5 011	2 352
Aircraft	142	100	116	83	84
Railway rolling stock, etc.	346	616	452	530	328
Road vehicles	6 602	7 920	7 792	7 551	8 168
Ships and river craft; marine structures	552	652	712	658	572
Refuse	4 600	7 340	7 096	7 913	6 956
Outdoor storage	2 078	3 620	3 584	3 739	2 884
Other fires	4 168	5 504	5 180	5 268	4 944
TOTAL FIRES OTHER THAN THOSE IN BUILDINGS	38 530	71 280	71 704	68 590	49 920
TOTAL FIRES ATTENDED	84 500	121 772	123 168	119 284	101 912

SECTION I

Table 2A

SUPPOSED CAUSES OF FIRES IN BUILDINGS
Reports from Fire Brigades in the United Kingdom, 1954-1958

Supposed cause of fire	No. of fires				
	1954	1955	1956	1957	1958
Ashes, soot	822	1 088	984	952	996
Brazier	100	68	152	72	56
Camp fire, fire in open air	-	12	12	5	4
Candle	364	308	380	323	396
Chimney on fire, not confined to chimney	3 168	3 164	3 148	2 689	2 768
Chimney, sparks from (outside building)	400	416	456	387	244
Cooker, cooking range, oven, other than electric, town gas or oil	408	380	352	457	284
Electric cooker	924	976	1 184	1 335	1 452
fire, heater, radiator	1 190	1 416	1 288	1 090	1 320
iron	378	364	272	305	224
motor	258	268	324	322	372
refrigerator	916	880	752	800	788
wire and cable	2 630	2 536	2 416	2 043	2 436
wireless, television	592	540	604	680	692
other apparatus	1 298	1 772	1 792	2 030	2 028
Explosives, fireworks	280	272	268	292	384
Fire in grate igniting -					
bedding, clothing, linen	1 178	1 064	1 124	937	932
furniture and furnishings	1 060	1 116	1 052	839	812
structural timber under hearth	2 712	2 472	2 084	1 422	1 596
other materials	2 752	2 724	2 728	2 169	2 244
Fish frying range (all fuels)	864	936	924	960	1 012
Flue	1 148	956	948	747	700
Furnace (coal or coke)	68	64	64	44	48
Gas (town) burner, jet, ring cooker	524	400	376	304	280
fire, heater, radiator	1 266	1 360	1 552	1 589	1 592
other apparatus	286	304	284	209	208
Incubator, brooder (all fuels)	608	640	684	518	676
Intentional burning of grassland, gorse, etc.	582	720	764	576	680
Lightning	24	28	72	20	16
	60	104	132	249	196
Lime	16	-	12	6	8
Locomotives, sparks from	242	336	264	290	224
Malicious ignition (1)	228	244	312	357	396
Matches	770	924	844	681	616
Matches, children with(4)	2 254	3 192	3 464	4 675	4 716
Mechanical heat or sparks	500	588	616	590	576
Metal, hot	240	212	148	179	156
Naked light(2)	484	584	504	599	620
Oil blow lamp	1 058	1 036	1 204	845	776
engine (including petrol)	200	256	248	181	152
lamp, stove	1 034	1 224	1 844	1 948	3 036
tractor	102	80	76	90	92
other apparatus	236	200	308	261	312
Oxyacetylene cutting and welding apparatus	366	336	384	389	412
Rubbish burning	682	872	848	980	1 028
Slow combustion stove igniting -					
structural woodwork	376	400	408	297	276
other materials	996	1 032	1 096	1 005	960
Smoking materials	3 714	4 412	4 440	4 971	5 264
Spontaneous combustion	192	364	160	308	276
Static electricity	34	36	20	11	32
Steam roller, engine, traction engine	4	-	-	1	-
Sun's rays	22	120	36	109	36
Taper, lighted paper or sticks	330	380	296	269	264
Taper, lighted paper or sticks, children with(4)	128	156	148	212	316
Miscellaneous(3)	724	1 012	896	860	648
Unknown source of ignition	4 182	5 148	5 736	6 215	5 364
TOTAL FIRES IN BUILDINGS	45 970	50 492	51 464	50 694	51 992

Notes (1) Malicious ignition is a general heading for suspected or proven arson or incendiarism.

(2) No further information given in original reports.

(3) Not comparable with the miscellaneous category in Annual Statistical Tables for the years prior to 1954.

(4) A change in definition has increased the number of incidents in these categories in 1957 and succeeding years.

SECTION I

Table 2B

SUPPOSED CAUSES OF FIRES OTHER THAN THOSE IN BUILDINGS
Reports from Fire Brigades in the United Kingdom, 1954-1958

Supposed cause of fire	No. of fires				
	1954	1955	1956	1957	1958
Aircraft, crashed	132	80	92	63	40
Ashes, soot	1 280	1 872	1 728	1 719	1 304
Brazier	148	168	196	128	116
Camp fire, fire in open air	226	360	240	149	56
Candle	8	20	16	13	24
Chimney on fire not confined to chimney	-	4	12	8	4
Chimney, sparks from (outside building)	76	112	88	79	36
Cooker, cooking range, oven, other than electric, town gas or oil	12	16	16	22	24
Electric motor	50	36	32	54	40
wire and cable	2 966	2 724	2 812	2 447	2 524
other apparatus	532	1 056	1 120	1 087	1 064
Explosives, fireworks	506	708	620	530	492
Fish frying range (all fuels)	22	20	16	15	8
Flue	142	116	164	157	144
Furnace (coal or coke)	4	4	4	1	-
Gas (town) apparatus	412	512	392	339	412
Incubator, brooder (all fuels)	26	20	16	16	20
Intentional burning of grassland, gorse, etc.	400	824	1 068	477	604
Lightning	60	52	48	113	88
Lime	28	12	20	30	20
Locomotives, sparks from	5 070	13 340	9 688	17 138	5 596
Malicious ignition ⁽¹⁾	90	108	124	123	116
Matches	600	1 256	1 456	583	424
Matches, children with ⁽⁴⁾	8 088	15 368	18 220	14 050	15 080
Mechanical heat or sparks	458	604	516	581	664
Metal, hot	54	96	56	95	52
Naked light	508	1 252	1 376	1 161	868
Oil blow lamp	66	48	60	41	48
engine (including petrol)	2 150	2 784	2 432	2 358	2 828
lamp, stove	178	288	296	282	352
tractor	278	440	292	288	236
other apparatus	150	312	184	221	204
Oxyacetylene cutting and welding apparatus	352	432	476	439	504
Rubbish burning	3 214	6 940	6 420	5 503	3 532
Slow combustion stove	322	332	448	326	348
Smoking materials	3 238	7 060	6 508	6 757	4 676
Spontaneous combustion in rubbish	146	220	112	131	68
other materials	366	660	196	429	196
Static electricity	4	8	-	-	-
Steam roller, engine, traction engine	12	24	16	3	4
Sun's rays	38	296	104	353	28
Taper, lighted paper or sticks	150	176	184	129	80
Taper, lighted paper or sticks, children with ⁽⁴⁾	18	52	84	107	156
Miscellaneous ⁽³⁾	300	336	372	333	328
Unknown source of ignition	5 650	10 132	13 384	9 712	6 512
TOTAL FIRES OTHER THAN THOSE IN BUILDINGS	38 530	71 280	71 704	68 590	49 920

Notes (1) Malicious ignition is a general heading for suspected or proven arson or incendiarism.

(2) No further information given in original reports.

(3) Not comparable with the miscellaneous category in Annual Statistical Tables for the years prior to 1954.

(4) A change in definition has increased the number of incidents in these categories in 1957 and succeeding years.

SECTION I

Table 3A

METHOD OF EXTINCTION OF FIRES IN BUILDINGS

Reports from Fire Brigades in the United Kingdom, 1954-1958

Method of extinction	Extinguished before arrival of Fire Brigade					Extinguished by Fire Brigade					Total				
	1954	1955	1956	1957	1958	1954	1955	1956	1957	1958	1954	1955	1956	1957	1958
1 Burned out	904	844	880	1 032	1 040	-	-	-	-	-	904	844	880	1 032	1 040
2 Removal	1 278	1 100	1 288	1 287	1 520	3 618	3 008	2 864	3 040	2 896	4 894	4 108	4 132	4 327	4 416
3 Automatic sprinkler system	42	60	48	51	48	-	-	-	-	-	42	60	48	51	48
4 Beating	240	316	204	234	244	54	64	68	68	68	294	380	272	302	312
5 Smothering	830	952	1 076	773	816	298	388	328	298	424	1 128	1 340	1 404	1 071	1 240
6 Sand, earth, etc.	130	188	140	169	336	38	44	80	63	44	168	232	220	232	380
7 Water from buckets	3 022	3 368	3 668	3 428	3 344	2 692	2 638	2 658	2 118	2 092	5 714	6 004	6 324	5 546	5 436
8 Water from stirrup or hand pumps	50	48	40	41	72	4 446	4 408	4 218	3 472	3 472	4 496	4 456	4 258	3 513	3 544
9 Chemicals and chemical extinguishers	1 216	1 148	1 232	1 269	1 404	1 862	1 916	1 856	1 838	1 908	3 078	3 064	3 088	3 107	3 312
10 Two or more methods 4-9	374	436	384	352	436	150	248	156	198	192	524	684	540	550	628
11 Water from garden hose	170	216	224	248	156	-	-	-	-	-	170	216	224	248	156
12 Hose reel jets (using water in tank only)	48	40	52	54	48	15 696	18 568	19 788	20 218	21 412	15 744	18 608	19 840	20 272	21 460
13 Hose reel jets (using more water than that in tank)	8	-	4	9	-	2 164	2 552	2 236	2 258	2 252	2 172	2 552	2 240	2 267	2 252
14 Jets from inside hose reel or inside hydrant	60	60	112	93	120	102	100	108	124	120	162	160	220	217	240
15 Hose reel jets and jets from inside hose reel or inside hydrant	2	-	-	-	-	8	28	36	20	16	10	28	36	20	16
16 Jets from pumps and hydrants	104	96	92	89	96	5 528	6 536	6 464	6 765	6 292	5 632	6 632	6 556	6 854	6 389
17 Other and undefined methods	450	616	656	616	648	388	508	528	489	476	838	1 124	1 184	1 085	1 124
18 TOTAL FIRES IN BUILDINGS	8 928	9 488	10 080	9 745	10 328	37 042	41 004	41 384	40 949	41 664	45 870	50 492	51 464	50 694	51 992

Notes on methods of extinction

- "Removal" includes occurrences where (a) burning material was removed from the building (b) gas supply was turned off. If the burning material was tackled with methods 3-11 before removing it from the building, then such occurrences were classified under whichever of these methods applied.
- Methods 11-15 and method 16 include those occurrences in which methods 3-10 and 3-15 respectively may also have been used.
- "Fires extinguished by the Fire Brigade" include those fires which were tackled but not extinguished before the arrival of the Fire Brigade.

SECTION I

Table 3B

METHOD OF EXTINCTION OF FIRES OTHER THAN THOSE IN BUILDINGS
 Reports from Fire Brigades in the United Kingdom, 1954-1958

Method of extinction	Extinguished before arrival of Fire Brigade					Extinguished by Fire Brigade					Total				
	1954	1955	1956	1957	1958	1954	1955	1956	1957	1958	1954	1955	1956	1957	1958
1 Burned out	1 276	1 572	1 720	1 672	1 504	-	-	-	-	-	1 276	1 572	1 720	1 672	1 504
2 Removal	394	508	416	387	416	732	728	664	697	772	1 126	1 236	1 080	1 084	1 188
3 Automatic sprinkler system	2	-	-	-	-	-	-	-	-	-	2	-	-	-	-
4 Beating	784	1 432	1 440	1 090	1 180	6 468	11 540	15 456	11 112	11 160	7 252	12 972	16 896	12 202	12 340
5 Smothering	366	428	428	415	448	60	56	52	63	76	426	484	480	478	524
6 Sand, earth, etc.	270	312	276	265	404	174	188	192	121	96	444	500	468	386	500
7 Water from buckets	750	1 160	1 136	1 110	916	428	620	616	636	392	1 178	1 780	1 752	1 746	1 308
8 Water from stirrup or hand pumps	10	12	16	5	12	190	340	348	322	176	200	352	364	327	188
9 Chemicals and chemical extinguishers	1 036	1 276	1 176	1 029	1 004	1 638	2 108	1 872	1 796	1 972	2 674	3 384	3 048	2 825	2 976
10 Two or more methods 4-9	236	316	260	278	208	326	880	1 020	949	356	562	1 196	1 280	1 227	564
11 Water from garden hose	58	120	96	136	116	-	-	-	-	-	58	120	96	136	116
12 Hose reel jets (using water in tank only)	150	200	380	304	148	15 444	31 552	32 120	33 074	20 944	15 594	31 752	32 500	33 378	21 092
13 Hose reel jets (using more water than that in tank)	6	8	-	8	12	1 202	2 896	2 076	2 353	1 180	1 206	2 904	2 076	2 361	1 192
14 Jets from pumps and hydrants	120	232	200	242	176	6 008	12 244	9 288	10 104	5 832	6 128	12 476	9 488	10 346	6 008
15 Other and undefined methods	258	356	316	283	320	144	196	140	139	100	402	552	456	422	420
16 TOTAL FIRES OTHER THAN THOSE IN BUILDINGS	5 716	7 932	7 860	7 224	6 864	32 814	63 348	63 844	61 366	43 056	38 530	71 280	71 704	68 590	49 920

Notes on methods of extinction

- Methods 10-12 and method 13 include those occurrences in which methods 3-9 and 3-12 respectively may also have been used.
- "Fires extinguished by the Fire Brigade" include those fires which were tackled but not extinguished before the arrival of the Fire Brigade.

SECTION I

Table 4

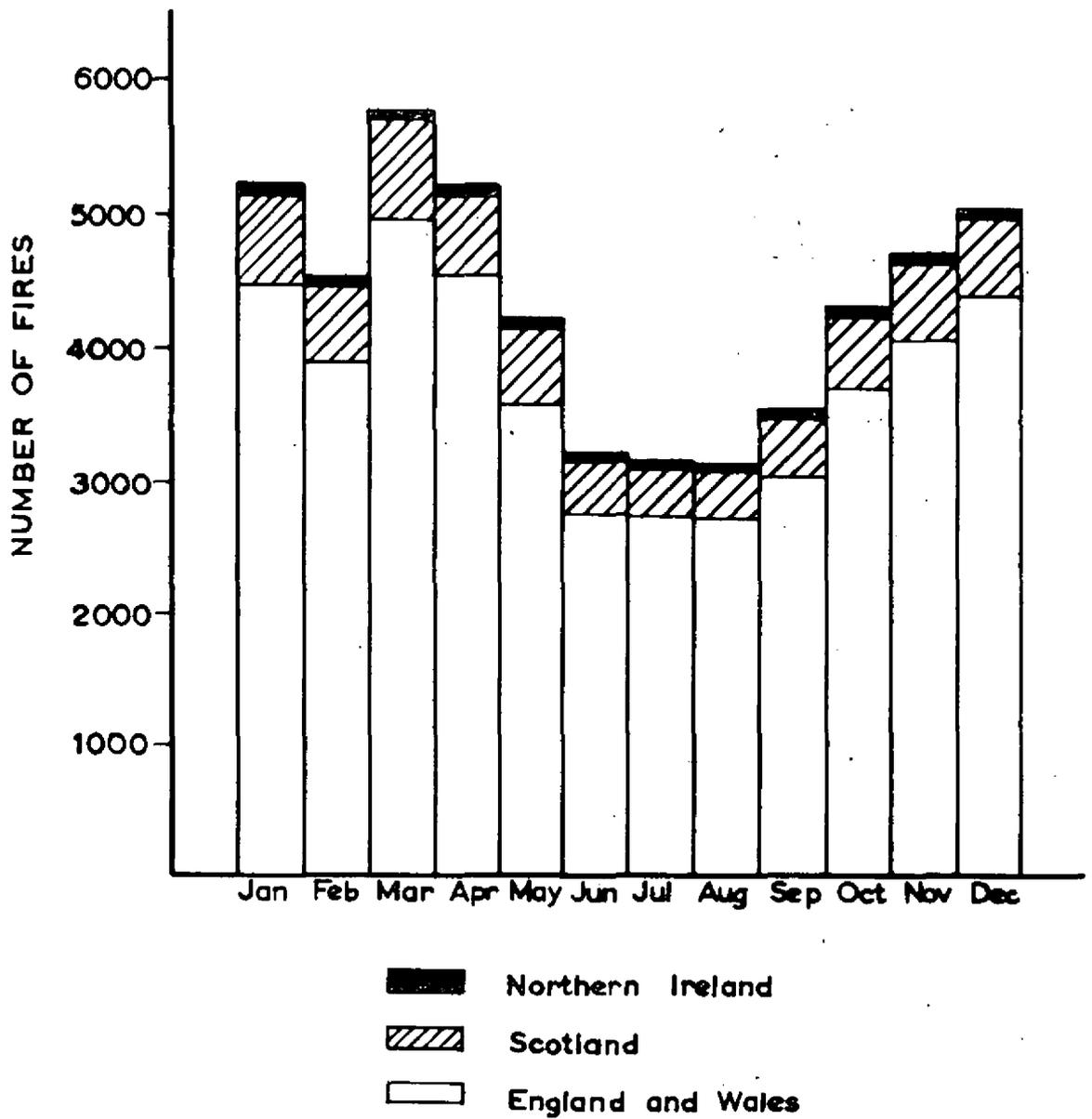
CASUALTIES IN FIRES

Reports from Fire Brigades in the United Kingdom, 1954-1958 *

Casualties	England and Wales					Scotland					Northern Ireland					United Kingdom					
	1954	1955	1956	1957	1958	1954	1955	1956	1957	1958	1954	1955	1956	1957	1958	1954	1955	1956	1957	1958	
Fatal casualties																					
Fire Brigade	3	2	2	5	2	-	-	-	-	-	-	-	-	-	-	3	2	2	5	2	
Other casualties	423	574	461	439	393	67	50	61	54	51	2	7	5	9	5	492	631	527	502	449	
Total	426	576	463	444	395	67	50	61	54	51	2	7	5	9	5	495*	633*	529*	507*	451*	
Non-fatal casualties †																					
Fire Brigade	584	347	342	328	285	40	60	25	22	26	7	10	7	8	8	631	417	374	358	319	
Other casualties	3 454	3 065	2 928	2 627	2 683	210	218	195	166	168	27	44	47	28	36	3 691	3 327	3 170	2 921	2 887	
Total	4 038	3 412	3 270	2 955	2 968	250	278	220	188	194	34	54	54	36	44	4 322	3 744	3 544	3 179	3 206	
TOTAL CASUALTIES	4 464	3 988	3 733	3 399	3 363	317	328	281	242	245	36	61	59	45	49	4 817	4 377	4 073	3 686	3 657	

* The number of fatalities is less than the number of deaths recorded by the Registrar General as being due to conflagration and accidental burns and scalds because although the Fire Brigades most probably attend all occurrences where persons are burnt to death by being trapped in burning buildings, etc., they only attend a proportion of the much larger number of incidents where deaths due to accidental burns and scalds occur.

† Excludes casualties requiring first-aid treatment only.

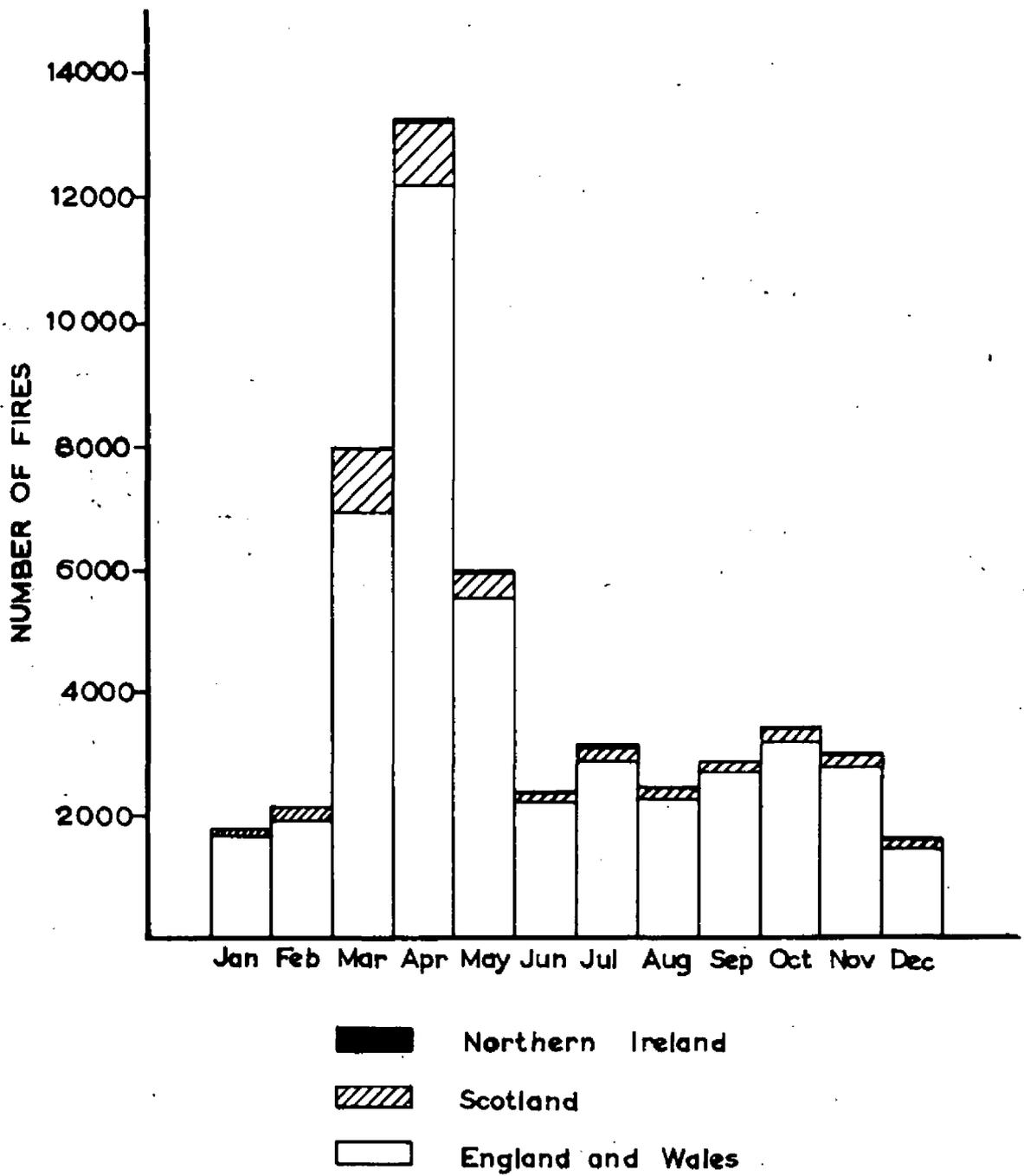


REPORTS FROM FIRE BRIGADES IN THE UNITED KINGDOM 1958

(Frequencies obtained by multiplying the results of analysis of a one-in-four sample of reports by four)

FIG.1. FIRES IN BUILDINGS CLASSIFIED ACCORDING TO THE MONTH IN WHICH THEY OCCURRED

1/3611 F.R. 422



REPORTS FROM FIRE BRIGADES IN THE UNITED KINGDOM 1958

(Frequencies obtained by multiplying the results of analysis of a one-in-four sample of reports by four)

FIG.2. FIRES OTHER THAN THOSE IN BUILDINGS CLASSIFIED ACCORDING TO THE MONTH IN WHICH THEY OCCURRED

1/3612 F.R. 422

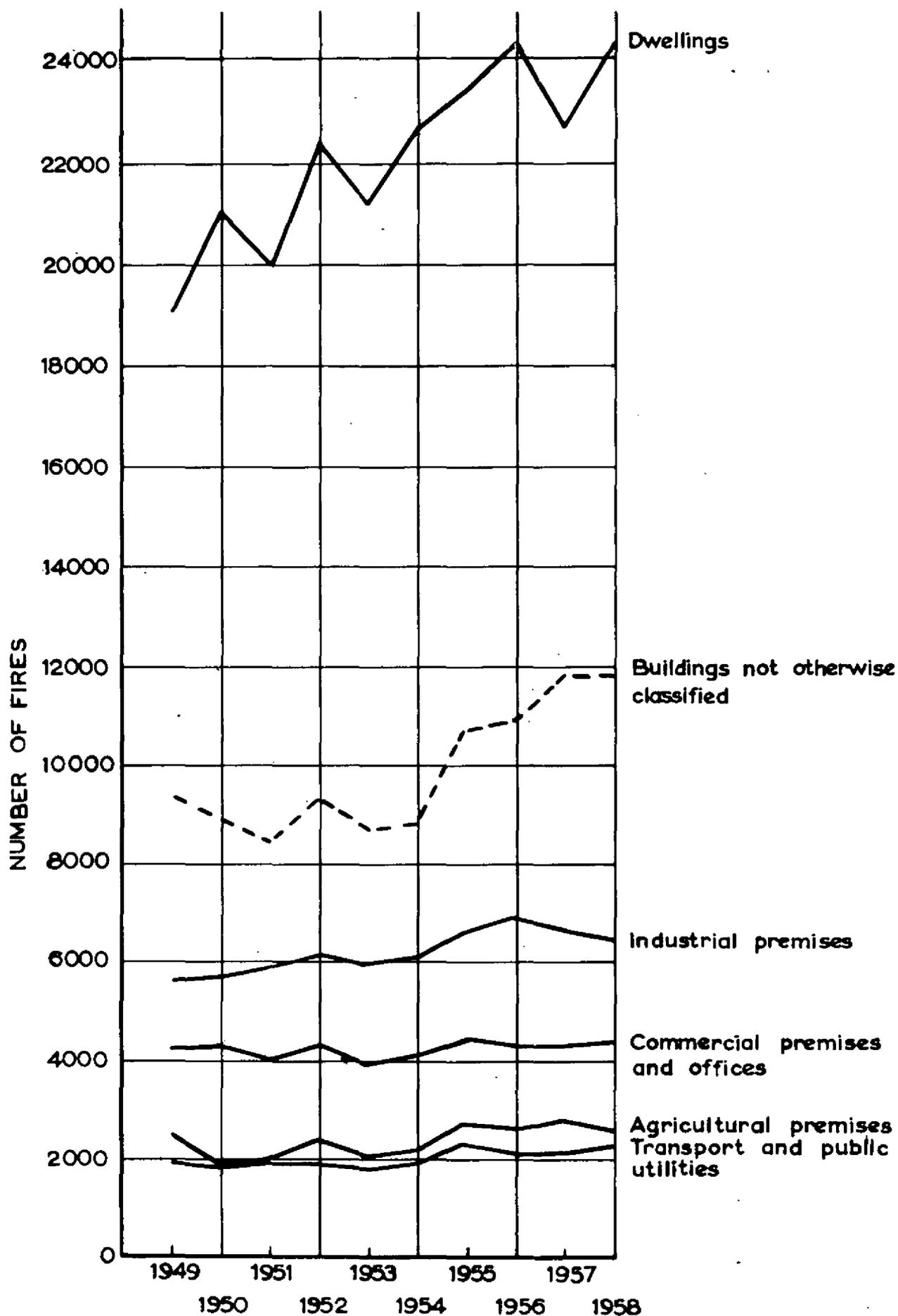


FIG.3. FIRES IN BUILDINGS ACCORDING TO OCCUPANCY. (UNITED KINGDOM 1949-1958)

1/3613 F.R. 422

SECTION II

STATISTICAL TABLES FOR FIRE BRIGADES IN ENGLAND AND WALES, 1958

Table 1

METHOD OF CALLING FIRE BRIGADES TO FIRES

Reports from England and Wales, 1958

(Frequencies obtained by multiplying results of analysis of a one in four sample of reports by four)

Method of Calling	County Fire Brigades																																
	Anglesey	Bedfordshire	Berkshire and Reading C.B.	Breconshire and Radnorshire	Buckinghamshire	Caernarvonshire	Cambridgeshire	Cardiganshire and Carmarthenshire	Cheshire	Cornwall	Cumberland	Denbighshire and Montgomeryshire	Derbyshire	Devonshire	Dorsetshire	Durham	Ely, Isle of	Essex	Flintshire	Glamorganshire	Gloucestershire	Hampshire	Herefordshire	Hertfordshire	Huntingdonshire	Kent and Canterbury	Lancashire	Leicestershire and Rutland	Lincolnshire, Holland	Lincolnshire, Kesteven	Lincolnshire, Lindsey		
By Special Fire Service methods																																	
Automatic fire alarm	4	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	4	-	12	-	-	-	-	-	-	-	-	-
Fire and police pillar box	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Police telephone	-	36	52	-	24	-	16	4	4	-	16	4	32	4	-	-	4	20	-	-	4	4	8	72	-	36	8	32	8	8	8	12	
Private fire telephone	-	4	12	-	12	-	-	-	24	4	-	4	-	-	-	44	-	52	-	20	-	12	-	12	-	40	96	-	-	-	-	-	
Street fire alarm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	52	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	4	40	64	-	40	-	16	4	28	4	16	4	40	4	-	44	4	128	-	20	4	20	8	96	-	76	104	32	8	8	12		
Exchange telephone	56	376	492	68	500	136	244	248	1,048	320	236	292	672	600	152	976	144	2,180	144	820	488	864	164	924	144	2,112	2,632	264	128	116	312		
Running call	-	32	12	12	40	8	24	28	64	8	32	36	24	28	20	108	8	144	12	68	36	48	4	72	16	104	188	36	4	16	32		
Late call	4	20	28	-	20	24	-	8	16	4	8	16	64	16	16	20	-	80	12	104	12	72	-	36	16	184	116	8	4	8	12		
Other and undefined methods	24	120	144	16	152	72	12	80	584	96	108	64	220	116	584	416	-	788	64	312	168	760	28	392	12	776	1,388	64	4	12	60		
Total fires attended	88	588	740	96	752	240	296	368	1,740	432	400	412	1,020	764	772	1,564	156	3,320	232	1,324	708	1,764	204	1,520	188	3,252	4,428	404	148	160	428		

N.B. A change in reporting procedure instituted in 1958 has resulted in an increase in the number of incidents where the method of call was undefined.

SECTION II

Table 1 (contd.)

METHOD OF CALLING FIRE BRIGADES TO FIRES

Reports from England and Wales, 1958

(Frequencies obtained by multiplying results of analysis of a one in four sample of reports by four)

Method of Calling	County Fire Brigades (Contd.)																										
	London	Merioneth	Middlesex	Monmouthshire	Norfolk	Northamptonshire	Northumberland	Nottinghamshire	Oxfordshire	Pembrokeshire	Peterborough, Soke of	Salop	Scilly, Isles of	Somersetshire	Staffordshire	Suffolk and Ipswich C.B.	Surrey	Sussex, East	Sussex, West	Warwickshire	Westmorland	Wight, Isle of	Wiltshire	Worcestershire and Worcester C.B.	Yorkshire East Riding	Yorkshire North Riding	Yorkshire West Riding
By Special Fire Service methods																											
Automatic fire alarm	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4
Fire and police pillar box	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8	-	-	4	-	-	-	-	-	4	-	-	12
Police telephone	20	-	4	-	-	20	24	8	8	-	12	8	-	4	44	24	8	16	24	24	-	-	8	4	4	24	68
Private fire telephone	76	-	36	4	-	-	-	12	-	-	-	12	-	4	12	-	16	-	-	4	-	-	4	8	4	92	12
Street fire alarm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-
Total	96	-	48	4	-	20	24	20	8	-	12	20	-	8	64	24	24	20	24	28	-	-	12	16	8	120	96
Exchange telephone	7 984	44	2 892	300	476	280	472	596	232	112	88	392	-	604	764	536	1 540	364	380	608	60	104	552	592	192	412	1 620
Running call	480	4	104	4	32	36	64	48	24	-	4	32	-	16	60	32	92	12	24	28	8	8	48	60	8	20	168
Late call	80	4	296	12	-	4	16	16	-	16	4	20	-	-	60	16	96	20	16	72	-	-	48	32	16	16	68
Other and undefined methods	492	4	644	104	84	52	228	320	56	12	20	56	-	88	484	148	1 076	224	112	304	44	36	112	228	28	80	552
Total fires attended	9 132	56	3 984	424	592	392	804	1 000	320	140	128	520	-	716	1 432	756	2 828	640	556	1 040	112	148	772	928	252	648	2 504

N.B. A change in reporting procedure instituted in 1958 has resulted in an increase in the number of incidents where the method of call was undefined.

SECTION II

Table 1 (Contd.)

METHOD OF CALLING FIRE BRIGADES TO FIRES

Reports from England and Wales, 1958

(Frequencies obtained by multiplying results of analysis of a one in four sample of reports by four)

Method of Calling	County Borough Fire Brigades																										
	Barnsley	Barrow in Furness	Bath	Birkenhead	Birmingham	Blackburn	Blackpool	Bolton	Boole	Bournemouth	Bradford	Brighton	Bristol	Burnley	Burton on Trent	Bury	Cardiff	Carlisle	Chester	Coventry	Croydon	Darlington	Derby	Dewsbury	Doncaster	Dudley	Eastbourne
By Special Fire Service methods																											
Automatic fire alarm	-	-	-	-	4	-	-	-	-	-	-	-	4	-	-	4	-	-	-	-	4	-	4	-	-	-	-
Fire and police pillar box	-	-	8	-	-	16	16	28	16	-	-	-	36	-	4	-	4	-	-	-	-	-	4	4	4	4	-
Police telephone	12	20	4	72	200	40	20	16	16	-	60	76	72	4	-	4	56	20	16	16	8	4	24	12	24	12	4
Private fire telephone	-	-	-	12	24	-	8	4	12	-	-	8	8	-	-	-	4	-	-	4	-	-	-	-	-	4	-
Street fire alarm	4	-	-	-	44	-	-	-	-	-	-	-	-	-	-	-	80	-	-	-	-	-	-	-	-	-	-
Total	16	20	12	84	272	56	44	48	44	-	60	84	84	40	-	12	140	24	16	20	12	4	32	16	28	20	4
Exchange telephone	88	88	144	264	1,640	144	244	260	136	160	384	228	628	136	44	116	316	120	116	400	300	128	268	76	104	72	68
Running call	4	12	12	40	128	12	12	12	20	-	24	16	48	12	-	24	20	12	-	32	16	20	24	-	4	16	4
Late call	-	-	8	52	68	-	20	-	40	12	28	4	48	8	12	-	-	-	-	-	64	-	28	8	4	-	8
Other and undefined methods	28	60	4	164	520	60	120	68	120	152	100	40	232	72	4	64	60	32	48	216	68	24	52	36	36	72	16
Total fires attended	136	180	180	604	2,628	272	440	388	360	324	596	372	1,040	268	60	216	536	188	180	668	460	176	404	136	176	180	100

N.B. A change in reporting procedure instituted in 1958 has resulted in an increase in the number of incidents where the method of call was undefined.

SECTION II
Table 1 (Contd.)

METHOD OF CALLING FIRE BRIGADES TO FIRES

Reports from England and Wales, 1958

(Frequencies obtained by multiplying results of analysis of a one in four sample of reports by four)

Method of Calling	County Borough Fire Brigades (Contd.)																										
	East Ham	Exeter	Gloucester	Great Yarmouth	Grimsby	Hallifax	Hastings	Huddersfield	Kingston upon Hull	Leeds	Leicester	Lincoln	Liverpool	Manchester	Merthyr Tydfil	Middlesbrough	Newcastle upon Tyne and Gateshead	Newport (Mon.)	Northampton	Norwich	Nottingham	Oldham	Oxford	Plymouth	Portsmouth	Preston	Rochdale
By Special Fire Service methods																											
Automatic fire alarm	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Fire and police pillar box	-	4	-	-	-	12	-	-	-	-	-	-	-	4	-	-	80	-	-	8	76	20	-	-	4	-	12
Public telephone	4	8	-	24	12	8	-	28	144	120	48	12	60	196	4	56	44	32	44	32	12	24	20	32	16	-	8
Private fire telephone	4	-	-	-	4	4	-	-	4	-	8	-	32	16	16	-	8	-	-	-	-	-	-	28	16	-	4
Street fire alarm	-	-	-	-	-	-	-	-	4	-	-	-	124	84	-	8	-	-	-	-	-	-	-	-	-	-	-
Total	8	12	-	24	16	24	-	28	152	120	56	12	216	304	20	64	132	32	44	40	88	44	20	60	36	-	24
Exchange telephone	140	124	124	72	160	124	88	128	460	552	392	88	1 372	1 132	60	212	528	172	72	192	408	216	104	244	328	216	148
Running Call	8	12	16	8	8	24	4	4	24	20	16	4	136	116	12	12	28	4	28	4	8	4	12	16	8	16	8
Late Call	-	4	4	-	-	-	-	12	12	16	-	-	112	184	12	16	16	8	-	12	8	4	12	4	-	8	8
Other and undefined methods	20	16	20	16	12	48	32	56	56	208	100	28	296	400	12	16	112	68	28	44	160	24	12	32	80	60	60
Total fires attended	176	168	164	120	196	220	124	228	704	916	564	132	2 132	2 136	116	320	816	284	172	292	672	292	160	356	452	300	248

N.B. A change in reporting procedure instituted in 1958 has resulted in an increase in the number of incidents where the method of call was undefined.

SECTION II

Table 1 (Contd.)

METHOD OF CALLING FIRE BRIGADES TO FIRES

Reports from England and Wales, 1958

(Frequencies obtained by multiplying results of analysis of a one in four sample of reports by four)

Method of Calling	County Borough Fire Brigades (Contd.)																					Total fires attended in England and Wales			
	Rotherham	St. Helens	Salford	Sheffield	Smethwick and West Bromwich	Southampton	Southend	Southport	South Shields	Stockport	Stoke on Trent	Sunderland	Swansea	Tynemouth	Wakefield	Wallasey	Walsall	Warrington	West Ham	West Hartlepool	Wigan	Wolverhampton	York	No.	Per Cent
	By Special Fire Service methods																								
Automatic Fire alarm	-	-	-	4	-	-	-	-	4	4	-	-	-	-	-	-	-	-	-	-	-	-	4	80	0.1
Fire and police pillar box	8	-	-	28	-	4	4	4	24	8	-	-	-	-	16	8	-	-	8	8	4	-	516	0.6	
Police telephone	16	32	100	36	20	-	4	16	-	20	44	48	12	36	16	20	20	8	8	12	12	40	48	3 132	3.5
Private fire telephone	4	-	16	4	4	20	-	-	-	-	-	4	-	36	-	-	-	-	4	-	-	-	-	956	1.1
Street fire alarm	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	408	0.5
Total	28	32	116	72	28	24	4	20	28	32	44	52	12	72	16	36	28	8	12	20	20	44	52	5 092	5.6
Exchange telephone	72	116	208	528	192	280	184	108	144	200	228	292	192	108	76	124	108	128	396	136	108	204	148	58 856	65.2
Running call	-	4	8	20	16	12	8	4	4	36	24	16	12	-	8	8	12	4	16	12	8	12	-	4 008	4.4
Late call	-	8	40	24	8	-	220	16	-	-	8	4	4	-	-	20	20	-	4	8	8	-	-	2 912	3.2
Other and undefined methods	48	64	52	108	100	360	36	40	80	80	92	96	112	36	24	124	100	36	48	36	48	60	16	19 504	21.6
Total fires attended	148	224	424	752	344	676	252	188	256	348	396	460	332	216	124	312	268	176	476	212	192	320	216	90 372	100.0

N.B. A change in reporting procedure instituted in 1958 has resulted in an increase in the number of incidents where the method of call was undefined.

SECTION II

Table 2

FIRES CLASSIFIED ACCORDING TO HAZARD IN WHICH FIRE STARTED

Reports from England and Wales, 1958

(Frequencies obtained by multiplying results of analysis of a one-in-four sample of reports by four)

Hazard in which fire started	Total	
	No.	Per cent
Fires in buildings classified according to trade or business carried on		
<u>Agriculture</u>		
Farming (not fruit or poultry) and horse and stock rearing	1 872	2.1
Allotments, market gardening, fruit and poultry farming	436	0.5
Total	2 308	2.6
<u>Mining, quarrying and treatment of non-metalliferous mine and quarry products (excluding gas works)</u>	84	0.1
<u>Manufacture of bricks, pottery, glass, etc.</u>	132	0.1
<u>Manufacture of chemicals, dyes, explosives, paints, oils</u>		
Chemicals	168	0.2
Explosives	4	-
Paints, varnish, oils, grease	116	0.1
Miscellaneous	72	0.1
Total	360	0.4
<u>Manufacture of metals, machines, implements, conveyances</u>		
Smelting, converting, refining, rolling of iron, steel	120	0.1
Extracting, refining, smelting of other metals	48	-
Founding, other secondary processes in metal working	196	0.2
Engineering (not marine or electrical)	304	0.3
Electrical installations, cables and apparatus	208	0.2
Construction and repair of vehicles	188	0.2
Shipbuilding and repairing, marine engineering	44	-
Cutlery and small tools	36	-
Other metal industries	388	0.4
Total	1 532	1.7
<u>Manufacture of textiles and textile goods (not dress)</u>		
Cotton	156	0.2
Wool, worsted and shoddy	84	0.1
Silk, natural and artificial	4	-
Other or mixed fibres	32	-
Miscellaneous	148	0.2
Textile dyeing, printing, bleaching, finishing	60	0.1
Total	484	0.5

SECTION II

Table 2 (Contd.)

FIRES CLASSIFIED ACCORDING TO HAZARD IN WHICH FIRE STARTED

Reports from England and Wales, 1958

(Frequencies obtained by multiplying results of analysis of a one-in-four sample of reports by four)

Hazard in which fire started	Total	
	No.	Per cent
Fires in buildings classified according to trade or business carried on (contd.)		
<u>Preparation of skins and leather and manufacture of goods of leather and leather substitute (not clothing or footwear)</u>	108	0.1
<u>Manufacture of clothing (not knitted) including footwear</u>	272	0.3
<u>Manufacture of food, drink, tobacco</u>		
Food	324	0.4
Drink	28	-
Tobacco, cigars, cigarettes, snuff	4	-
Total	356	0.4
<u>Woodworking: manufacture of cane and basket ware, furniture, fittings</u>		
Woodworking and basket ware	268	0.3
Furniture (not metal or basket)	204	0.2
Fittings	28	-
Total	500	0.6
<u>Paper making: manufacture of stationery and stationery requisites, printing and bookbinding</u>	260	0.3
<u>Building, decorating, contracting: slate and stone cutting and dressing</u>	1 288	1.4
<u>Rubber and synthetic rubber</u>	116	0.1
<u>Other manufacturing industries</u>	228	0.3
<u>Gas, water, electricity, sewage</u>	148	0.2
<u>Transport and communication</u>		
Railway - stations etc.	308	0.3
Road - garages, depots, etc.	1 344	1.5
Water - dock buildings other than warehouses	64	0.1
Air, aerodromes, etc.	24	-
Other communication (post, telephone, wireless)	132	0.1
Total	1 872	2.1

SECTION II

Table 2 (Contd.)

FIRES CLASSIFIED ACCORDING TO HAZARD IN WHICH FIRE STARTED

Reports from England and Wales, 1958

(Frequencies obtained by multiplying results of analysis of a one-in-four sample of reports by four)

Hazard in which fire started	Total	
	No.	Per cent
Fires in buildings classified according to trade or business carried on (contd.)		
<u>Commerce</u>		
Departmental stores	88	0.1
Retail shops	2 464	2.7
Wholesale dealers	608	0.7
Dock and other warehouses	56	0.1
Total	3 216	3.6
<u>Offices, Government and other</u>		
Government departments	64	0.1
Local authorities	152	0.2
Other offices	324	0.4
Total	540	0.6
<u>Navy, Army and Air Force establishments</u>	408	0.5
<u>Fire Service establishments</u>	24	-
<u>Professional establishments (other than offices); public institutions</u>		
Educational establishments	648	0.7
Hospitals, homes, etc. for the care of the sick and infirm	388	0.4
Places of worship	224	0.2
Other public and professional services	356	0.4
Total	1 616	1.8
<u>Places of public entertainment</u>		
Cinemas and theatres	216	0.2
Other places of entertainment	432	0.5
Total	648	0.7
<u>Private residential and personal service (including hotels and catering)</u>		
Private residential houses	16 560	18.3
Private residential flats and maisonettes	4 264	4.7
Clubs, hotels, restaurants, public houses	2 500	2.8
Private huts, unoccupied houses, personal service	1 952	2.2
Total	25 276	28.0
<u>Miscellaneous</u>	3 008	3.3
<u>Undefined</u>	32	-
Total fires in buildings	44 816	49.6

SECTION II

Table 2 (Contd.)

FIRES CLASSIFIED ACCORDING TO HAZARD IN WHICH FIRE STARTED

Reports from England and Wales, 1958

(Frequencies obtained by multiplying results of analysis of
a one-in-four sample of reports by four)

Hazard in which fire started	Total	
	No.	Per cent
Fires other than those in buildings		
<u>Agriculture and Forestry</u>		
Crops, standing or stooked (including hay fields)	180	0.2
Crops, ricks and stacks	932	1.0
Agricultural machinery	424	0.5
Agricultural waste	124	0.1
Other agricultural hazards	276	0.3
Allotments and gardens	224	0.2
Railway embankments	3 228	3.8
Grassland, heathland	16 768	18.6
Woods, forests, plantations	332	0.4
Single trees	1 060	1.2
Felled timber	80	0.1
Total	23 628	26.2
<u>Transport and communication</u>		
Aircraft	76	0.1
Railway, rolling stock etc.	272	0.3
Road vehicles - electrically driven	92	0.1
- oil, petrol or gas driven	7 352	8.1
- other	72	0.1
Water vessels - craft on inland waters	116	0.1
- ships in dock	316	0.3
- ships at sea	-	-
- marine structures	44	-
Total	8 340	9.2
<u>Outdoor storage</u>		
Chemicals, explosives, ammunition, oils grease	488	0.5
Coal and coke	84	0.1
Refuse	6 596	7.3
Timber	1 132	1.3
Cotton, metal, packing materials, rubber, etc.	924	1.0
Total	9 224	10.2
<u>Other outdoor structures</u>	4 364	4.8
Total fires other than those in buildings	45 556	50.4
Total fires attended	90 372	100.0

SECTION II

Table 3

FIRES CLASSIFIED ACCORDING TO HAZARD IN WHICH FIRE STARTED FOR EACH BRIGADE

Reports from England and Wales 1958

(Frequencies obtained by multiplying results of analysis of a one-in-four sample of reports by four)

Hazard in which fire started	County Fire Brigades																											
	Anglesey	Bedfordshire	Berkshire and Reading C.B.	Breconshire and Radnorshire	Buckinghamshire	Caernarvonshire	Cambridgeshire	Cardiganshire and Carmarthenshire	Cheshire	Cornwall	Cumberland	Denbigh and Montgomery	Derbyshire	Devonshire	Dorsetshire	Durham	Ely, Isle of	Essex	Flintshire	Glamorganshire	Gloucestershire	Hampshire	Herefordshire	Hertfordshire	Huntingdonshire	Kent and Canterbury C.B.	Lancashire	Leicestershire and Rutland
Fires in buildings																												
Industrial premises	-	28	24	8	60	4	8	16	128	12	20	24	44	20	12	72	-	148	8	60	52	40	8	84	8	104	416	36
Commercial premises and offices	-	16	24	-	16	12	8	20	52	20	12	16	20	24	24	48	4	76	-	36	24	20	4	60	12	116	152	12
Transport and public utilities	-	12	20	4	20	4	4	12	24	12	12	-	28	8	-	48	8	64	8	44	20	20	8	32	-	60	116	8
Dwellings	20	144	180	20	148	48	72	104	336	92	96	68	252	256	76	348	40	664	64	396	176	252	48	284	44	772	800	100
Other buildings	28	88	108	32	124	48	52	64	200	100	76	88	112	120	106	248	36	460	48	136	72	240	52	188	28	444	616	52
Total	48	288	356	64	368	116	144	216	740	236	216	196	456	428	220	764	88	1 432	128	672	344	572	120	648	92	1 516	2 100	208
Fires not in buildings																												
Agriculture, grassland, forestry	24	180	196	20	228	84	40	96	712	108	124	104	352	220	452	520	56	1 072	56	416	224	924	32	552	44	1 064	1 472	120
Transport	12	36	84	8	120	12	64	36	124	36	32	28	100	76	64	124	4	264	28	120	84	132	40	160	32	304	320	36
Outdoor storage including refuse	4	56	68	-	24	20	40	16	128	24	8	44	80	28	16	96	4	344	4	48	36	72	8	80	12	216	372	28
Other outdoor hazards	-	28	36	4	12	8	8	4	36	28	20	40	32	12	20	60	4	208	16	68	20	64	4	80	8	152	164	12
Total	40	300	384	32	384	124	152	152	1 000	196	184	216	564	336	652	800	68	1 888	104	652	364	1 192	84	872	96	1 736	2 328	196
Total fires attended	88	588	740	96	752	240	296	368	1 740	432	400	412	1 020	764	772	1 564	156	3 320	232	1 324	708	1 764	204	1 520	188	3 252	4 428	404

SECTION II

Table 3 (Contd.)

FIRES CLASSIFIED ACCORDING TO HAZARD IN WHICH FIRE STARTED FOR EACH BRIGADE

Reports from England and Wales 1958

(Frequencies obtained by multiplying results of analysis of a one-in-four sample of reports by four)

Hazard in which fire started	County Fire Brigades (Contd.)																															
	Lincolnshire (Holland)	Lincolnshire (Kesteven)	Lincolnshire (Lindsey)	London	Merioneth	Middlesex	Monmouthshire	Norfolk	Northamptonshire	Northumberland	Nottinghamshire	Oxfordshire	Pembrokeshire	Peterborough, Soke of	Salop	Scilly, Isles of	Somersetshire	Staffordshire	Suffolk and Ipswich C.B.	Surrey	Sussex, East	Sussex, West	Warwickshire	Westmorland	Wight, Isle of	Wiltshire	Worcestershire and Worcester C.B.	Yorkshire (East Riding)	Yorkshire (North Riding)	Yorkshire (West Riding)		
Fires in buildings																																
Industrial premises	8	4	20	728	-	232	8	16	28	16	40	32	4	4	20	-	44	100	20	84	16	20	56	-	4	96	72	16	60	232		
Commercial premises and offices	12	-	16	588	-	156	16	20	12	32	32	-	-	-	20	-	28	72	12	72	16	28	28	12	4	16	28	4	12	52		
Transport and public utilities	-	8	12	164	-	108	32	8	12	20	12	4	-	8	-	-	12	36	8	36	16	16	24	4	12	12	24	4	20	60		
Dwellings	16	36	80	2 340	32	1 196	108	156	96	136	152	80	52	24	152	-	172	236	204	580	160	104	192	28	32	140	220	32	120	532		
Other buildings	44	40	72	1 416	16	424	60	68	68	144	116	40	28	24	120	-	148	136	92	240	84	100	124	28	40	184	108	68	100	384		
Total	80	88	200	5 236	48	2 116	224	288	216	348	352	156	84	60	312	-	404	580	336	1 012	292	288	424	72	92	448	452	124	312	1 260		
Fires not in buildings																																
Agriculture, grassland, forestry	48	40	132	520	8	828	136	228	88	288	440	72	24	32	132	-	168	588	272	1 224	252	140	380	24	40	188	300	60	124	696		
Transport	8	20	52	808	-	428	36	60	40	68	100	68	24	24	48	-	76	140	80	312	52	76	116	16	4	68	72	28	104	228		
Outdoor storage including refuse	4	12	28	1 952	-	408	16	16	24	76	56	12	4	4	8	-	44	84	48	200	24	52	64	-	-	36	88	32	64	212		
Other outdoor hazards	8	-	16	616	-	204	12	20	24	24	52	12	4	8	20	-	24	40	20	80	20	20	56	-	12	32	16	8	44	108		
Total	68	72	228	3 896	8	1 868	200	324	176	456	648	164	56	68	208	-	312	852	420	1 816	348	288	616	40	56	324	476	128	336	1 244		
Total fires attended	148	160	428	9 132	56	3 984	424	592	392	804	1 000	320	140	128	520	-	716	1 432	756	2 828	640	556	1 040	112	148	772	928	252	648	2 504		

SECTION II

Table 3 (Contd.)

FIRES CLASSIFIED ACCORDING TO HAZARD IN WHICH FIRE STARTED FOR EACH BRIGADE

Reports from England and Wales 1958

(Frequencies obtained by multiplying results of analysis of a one-in-four sample of reports by four)

Hazard in which fire started	County Borough Fire Brigades																																						
	Barnsley	Barrow in Furness	Bath	Birkenhead	Birmingham	Blackburn	Blackpool	Bolton	Bootle	Bournemouth	Bradford	Brighton	Bristol	Burnley	Burton-on Trent	Bury	Cardiff	Carlisle	Chester	Coventry	Croydon	Darlington	Derby	Dewsbury	Doncaster	Dudley	Eastbourne	East Ham	Exeter	Gloucester	Great Yarmouth	Grimsby	Halifax	Hastings	Huddersfield	Kingston upon Hull	Leeds	Leicester	Lincoln
Fires in buildings																																							
Industrial premises	8	4	-	28	298	48	24	40	28	8	28	24	88	40	12	18	32	16	4	24	36	8	28	8	12	12	-	4	8	12	4	12	36	-	36	44	96	44	8
Commercial premises and offices	12	8	12	12	128	8	20	24	16	4	28	20	48	12	8	20	44	8	12	24	16	4	12	8	12	20	8	4	20	20	12	8	12	12	16	52	64	16	4
Transport and public utilities	8	-	12	12	60	8	4	16	4	8	12	-	20	8	8	4	16	8	4	12	12	4	8	4	-	-	-	4	-	-	-	12	-	-	-	16	20	12	8
Dwellings	24	32	58	136	620	64	80	84	64	58	196	92	224	44	8	40	124	20	44	124	120	32	204	36	48	12	44	36	80	40	36	64	48	48	60	216	164	144	32
Other buildings	12	28	32	44	276	36	80	60	28	58	108	64	120	36	4	32	56	24	24	76	64	52	44	8	24	32	16	40	12	16	28	12	20	20	24	80	144	52	12
Total	64	72	112	232	1 380	184	208	224	140	132	372	200	480	140	40	112	272	76	88	260	248	100	296	64	96	76	68	88	120	88	80	108	116	80	136	408	488	288	64
Fires not in buildings																																							
Agriculture, grass-land, forestry	36	56	16	132	584	84	120	64	118	156	100	44	296	72	4	60	64	44	52	252	76	28	44	40	28	76	16	16	8	20	20	28	48	24	56	72	220	124	44
Transport	12	8	12	52	184	8	36	36	48	20	52	40	100	12	8	12	60	40	28	68	76	16	24	12	16	20	8	40	12	16	12	16	8	4	16	64	56	52	12
Outdoor storage including refuse	24	44	28	104	300	24	52	56	32	12	44	52	132	36	4	28	116	16	12	56	28	28	24	16	20	4	8	12	24	24	8	32	40	4	4	120	100	88	8
Other outdoor hazards	-	-	12	84	200	12	24	8	24	4	28	36	32	8	4	4	24	12	-	32	32	4	16	4	16	4	-	20	4	16	-	12	8	12	16	40	52	32	4
Total	72	108	68	372	1 248	108	232	164	220	192	224	172	560	128	20	104	264	112	92	408	212	76	108	72	80	104	32	88	48	76	40	88	104	44	92	296	428	296	68
Total fires attended	136	180	180	604	2 628	272	440	388	360	324	596	372	1 040	268	60	216	536	188	180	668	460	176	404	136	176	180	100	176	168	164	120	196	220	124	228	704	916	564	132

SECTION II

Table 3 (Contd.)

FIRES CLASSIFIED ACCORDING TO HAZARD IN WHICH FIRE STARTED FOR EACH BRIGADE

Reports from England and Wales 1958

(Frequencies obtained by multiplying results of analysis of a one-in-four sample of reports by four)

Hazard in which fire started	County Borough Fire Brigades (Contd.)																																Total fires in England and Wales							
	Liverpool	Manchester	Merthyr Tydfil	Middlesbrough	Newcastle on Tyne and Gateshead	Newport (Mon.)	Northampton	Norwich	Nottingham	Oldham	Oxford	Plymouth	Portsmouth	Preston	Rochdale	Rotherham	St. Helens	Salford	Sheffield	Smeethick and West Bromwich	Southampton	Southend	Southport	South Shields	Stockport	Stoke on Trent	Sunderland	Swansea	Tynemouth	Wakefield	Wallasey	Walsall		Warrington	West Ham	West Hartlepool	Wigan	Wolverhampton	York	
Fires in buildings																																								
Industrial premises	100	180	32	12	40	28	16	20	24	52	8	20	28	16	44	16	-	44	88	40	8	24	12	8	20	56	28	12	4	20	12	20	8	32	16	-	40	12	5	720
Commercial premises and offices	120	104	4	24	56	24	12	12	36	32	8	20	16	12	4	12	8	12	52	8	28	8	4	12	20	28	24	40	4	4	16	12	4	28	12	12	16	4	3	756
Transport and public utilities	40	48	4	8	24	20	4	8	8	4	-	4	28	4	12	4	12	8	24	4	18	12	8	4	12	-	8	12	8	-	8	12	4	4	12	8	-	12	2	020
Dwellings	568	628	32	72	228	36	52	56	164	52	64	84	156	64	44	24	44	124	184	64	88	80	60	56	72	80	148	80	40	16	72	56	28	84	48	48	68	36	20	824
Other buildings	336	288	20	76	144	20	12	20	80	52	12	60	36	32	32	12	32	68	120	24	56	32	24	44	44	44	28	36	32	16	24	20	32	36	36	60	36	12	496	
Total	1164	1248	92	192	492	128	96	116	312	192	92	188	284	128	136	68	96	256	468	140	196	156	108	124	168	208	248	172	92	72	124	124	64	180	124	104	184	100	44	816
Fires not in buildings																																								
Agriculture, grass-land, forestry	328	412	16	32	116	68	36	80	164	24	20	40	88	64	60	44	68	44	108	100	320	36	40	80	84	96	92	112	40	24	124	108	52	60	40	52	72	20	23	628
Transport	228	148	4	28	56	28	12	32	52	20	40	72	44	24	24	16	20	44	72	28	40	24	8	20	24	28	20	12	48	12	12	8	20	60	8	20	18	18	8	340
Outdoor storage including refuse	296	192	4	32	96	36	24	40	88	48	8	44	48	68	20	8	28	52	48	48	100	24	8	32	56	44	72	32	28	18	44	24	20	140	32	4	40	72	9	224
Other outdoor hazards	116	136	-	36	56	24	4	24	56	8	-	12	8	16	8	12	12	28	56	28	20	12	24	-	18	20	28	4	8	-	8	4	20	36	8	12	8	8	4	384
Total	968	888	24	128	324	156	76	176	360	100	68	168	188	172	112	80	128	168	284	204	480	96	80	132	180	188	212	160	124	52	188	144	112	296	88	96	108	116	45	556
Total fires attended	2 132	2 136	116	320	816	284	172	292	672	292	160	356	452	300	248	148	224	424	752	344	676	252	188	256	348	396	460	332	216	124	312	268	176	476	212	192	320	216	90	372

SECTION II

Table 4

SUPPOSED CAUSE OF FIRES

Reports from England and Wales, 1958

(Frequencies obtained by multiplying results of analysis of a one-in-four sample of reports by four)

Each item in the list of supposed causes of fire given in this table represents a group of causes which have a common source of ignition. In some cases the groups have been divided into sub-groups according to the nature of the material first ignited and in others according to the act with the source of ignition which led to the outbreak of fire. Certain causes were specified for the first time in 1954; the miscellaneous item is therefore not comparable with those for years previous to 1954.

Supposed cause of fire	Fires in buildings		Fires other than those in buildings		Total	
	No.	Per cent	No.	Per cent	No.	Per cent
Aircraft, crashed	-	-	32	-	32	-
Ashes, soot	724	0.8	1 192	1.3	1 916	2.1
Brazier	52	0.1	104	0.1	156	0.2
Camp fire, fire in open air ⁽¹⁾	4	-	48	-	52	0.1
Candle	332	0.4	24	-	356	0.4
Chimney on fire, not confined to chimney	2 108	2.3	4	-	2 112	2.3
Chimney, sparks from (outside building)	208	0.2	32	-	240	0.3
Cooker, cooking range, oven other than electric, town gas or oil ⁽¹⁾	260	0.3	20	-	280	0.3
Electric cooker	1 304	1.4	-	-	1 304	1.4
fire, heater, radiator	1 188	1.3	28	-	1 216	1.3
Electric iron	196	0.2	-	-	196	0.2
motor	328	0.4	36	-	364	0.4
refrigerator	732	0.8	24	-	756	0.8
television	368	0.4	-	-	368	0.4
wire and cable, other than lead to apparatus	1 912	2.1	2 004	2.2	3 916	4.3
Electric wire and cable, lead to apparatus	188	0.2	272	0.3	460	0.5
wireless	248	0.3	20	-	268	0.3
other apparatus	1 820	2.0	892	1.0	2 712	3.0
Explosives, fireworks	356	0.4	464	0.5	820	0.9
Fire in grate igniting bedding, clothing, linen	852	0.9	8	-	860	1.0
Fire in grate igniting furniture, furnishings	648	0.7	-	-	648	0.7
structural timber under hearth	1 308	1.4	-	-	1 308	1.4
Other materials	1 832	2.0	8	-	1 840	2.0
Fish frying range (all fuels)	928	1.0	8	-	936	1.0
Flue	656	0.7	120	0.1	776	0.9
Furnace (coal or coke)	40	-	-	-	40	-
Gas (town) burner, jet, ring	244	0.3	152	0.2	396	0.4
cooker	1 336	1.5	-	-	1 336	1.5
fire, heater, radiator	176	0.2	4	-	180	0.2
Other apparatus	608	0.7	236	0.3	844	0.9

SECTION II

Table 4 (Contd.)

SUPPOSED CAUSE OF FIRE

Reports from England and Wales, 1958

(Frequencies obtained by multiplying results of analysis of a one-in-four sample of reports by four)

Supposed cause of fire	Fires in buildings		Fires other than those in buildings		Total	
	No.	Per cent	No.	Per cent	No.	Per cent
Incubator, brooder, (all fuels)	620	0.7	20	-	640	0.7
Intentional burning of grassland, gorse, etc.	8	-	544	0.6	552	0.6
Lightning	188	0.2	76	0.1	264	0.3
Lime	4	-	16	-	20	-
Locomotives, sparks from	176	0.2	5 044	5.6	5 220	5.8
Malicious ignition ⁽¹⁾ ⁽²⁾	376	0.4	112	0.1	488	0.5
Matches	528	0.6	384	0.4	912	1.0
Matches, children with ⁽⁵⁾	4 164	4.6	13 684	15.1	17 848	19.8
Mechanical heat or sparks	520	0.6	604	0.7	1 124	1.2
Metal, hot	148	0.2	48	-	196	0.2
Naked light ⁽¹⁾ ⁽³⁾	384	0.4	704	0.8	1 088	1.2
Oil, blow lamp	692	0.8	36	-	728	0.8
engine (including petrol)	140	0.2	2 640	2.9	2 780	3.1
lamp	228	0.3	252	0.3	480	0.5
stove	2 612	2.9	88	0.1	2 700	3.0
tractor	72	0.1	212	0.2	284	0.3
other apparatus	276	0.3	192	0.2	468	0.5
Oxyacetylene cutting and welding apparatus	352	0.4	432	0.5	784	0.9
Rubbish burning	916	1.0	3 376	3.7	4 292	4.8
Slow combustion stove igniting structural woodwork	224	0.2	-	-	224	0.2
other materials	852	0.9	300	0.3	1 152	1.3
Smoking materials	4 660	5.2	4 376	4.8	9 036	10.0
Spontaneous combustion in rubbish	8	-	68	0.1	76	0.1
Spontaneous combustion in other materials	212	0.2	192	0.2	404	0.4
Static electricity	32	-	-	-	32	-
Steam roller, engine, traction engine	-	-	4	-	4	-
Sun's rays	36	-	24	-	60	0.1
Taper, lighted paper or sticks	224	0.2	80	0.1	304	0.3
Taper, lighted paper or sticks, children with ⁽⁵⁾	128	0.1	76	0.1	204	0.2
Miscellaneous ⁽⁴⁾	532	0.6	260	0.3	792	0.9
Unknown source of ignition	4 548	5.0	5 980	6.6	10 528	11.7
Total number of fires	44 816	49.6	45 556	50.4	90 372	100.0

- Notes: (1) Causes specified for the first time in the Annual Statistical Tables for 1954.
(2) Malicious ignition is a general heading for suspected or proven arson or incendiarism.
(3) No further information given in original reports.
(4) Not comparable with the years prior to 1954.
(5) A change in definition has increased the number of incidents in these categories in 1957 and succeeding years.

SECTION II
Table SA

SUPPOSED CAUSE OF FIRES IN BUILDINGS IN RELATION TO HAZARD IN WHICH FIRE STARTED
Reports from England and Wales, 1958

(Frequencies obtained by multiplying results of analysis of a one-in-four sample of reports by four)

Row No.	Supposed cause of fire	Hazards in which fire started																										Total Row No.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26		27
1	Ashes, soot	4	-	-	-	16	-	-	-	-	4	8	4	-	16	20	12	20	4	-	48	4	72	280	28	148	28	724
2	Brazier	4	-	-	-	8	-	-	-	4	4	4	4	4	20	12	4	4	-	4	4	168	64	4	1	4	52	
3	Camp fire, fire in open air (1)	-	-	-	-	-	-	-	-	-	4	4	4	4	-	20	-	-	-	-	4	168	64	4	1	4	4	
4	Candle	4	-	-	-	-	-	-	-	-	4	4	4	4	-	20	-	-	-	-	12	4	168	64	4	1	4	332
5	Chimney on fire, not confined to chimney	-	-	-	-	-	-	-	-	-	4	4	4	4	-	24	4	-	-	12	8	1 788	192	56	-	-	2 108	
6	Chimney, sparks from (outside building)	16	-	-	-	-	-	-	-	-	-	-	-	-	12	-	-	-	-	12	-	112	28	-	-	-	208	
7	Cooker, cooking range, oven, other than electric, coal gas or oil (1)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8	200	20	16	-	-	260	
8	Electric, cooker	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12	1 036	212	32	4	-	1 304	
9	Electric, heater, radiator	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	82	756	104	40	16	-	1 188	
10	Fire, heater, radiator from	8	-	-	-	-	-	-	-	-	-	-	-	-	32	82	12	24	12	4	4	124	32	16	-	-	1 188	

(73465)

27

11	Electric, motor	4	-	-	-	28	4	-	16	16	4	-	4	4	24	60	4	32	8	-	44	4	12	12	44	-	4	328	11	
12	refrigerator	-	-	-	-	4	4	4	12	-	-	-	-	-	-	420	12	4	-	4	24	4	100	32	108	-	-	732	12	
13	television	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8	-	-	4	-	4	-	268	76	8	-	-	368	13	
14	wire and cable other than lead to apparatus	84	-	8	4	36	20	12	4	-	12	28	8	4	192	112	24	60	16	-	84	28	856	176	100	44	-	1 912	14	
15	wire and cable lead to apparatus	8	-	4	-	4	4	-	-	-	-	-	-	4	40	12	8	-	-	-	8	-	80	8	8	-	-	188	15	
16	wireless	-	-	-	-	8	-	-	-	-	4	-	-	-	4	8	-	8	-	-	8	-	180	28	-	-	248	16		
17	other apparatus	40	12	4	56	124	24	24	24	32	36	8	32	28	100	192	16	40	28	-	88	32	640	100	100	36	4	1 820	17	
18	Explosives, fireworks	16	-	-	-	8	4	-	4	8	-	20	-	-	12	48	-	4	4	-	28	16	64	20	-	44	56	356	18	
19	Fire in grate, igniting bedding, clothing, linen.	-	4	-	-	-	-	4	-	-	-	-	-	-	4	-	-	-	4	-	-	-	740	88	8	-	-	852	19	
20	furniture and furnishings	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	4	4	-	-	-	520	96	20	-	-	648	20	
21	structural timber under hearth	-	-	4	-	4	-	4	4	4	-	4	-	-	-	16	-	12	12	-	20	-	800	344	76	4	-	1 308	21	
22	other materials	8	4	-	4	-	4	4	-	20	-	-	8	-	8	56	4	8	4	-	32	-	1 408	180	68	12	-	1 832	22	
23	Fish frying range	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	23	
24	(all fuels)	-	-	-	8	20	8	-	16	-	4	-	-	4	-	-	-	8	16	-	40	-	-	-	800	4	-	928	23	
25	Flue	40	8	-	-	12	-	16	8	8	44	-	4	28	28	28	12	16	28	-	48	12	224	28	48	20	16	656	24	
26	Furnace (coal or coke)	-	-	-	-	28	-	-	-	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	40	25	
27	Gas (town) burner, jet, ring cooker	-	-	-	8	24	4	12	12	4	-	-	4	4	4	40	8	4	-	-	16	8	56	24	8	4	-	244	26	
28	fire, heater, radiator	-	-	4	-	4	4	8	-	-	4	-	-	-	12	20	4	4	-	-	20	4	56	16	16	-	-	176	28	
29	other apparatus	-	4	4	32	108	8	12	40	-	12	4	20	-	-	28	4	4	-	4	48	4	140	60	32	40	-	608	29	
30	Incubator, brooder (all fuels)	504	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8	-	24	-	4	80	-	620	30	
31	Intentional burning of grassland, gorse, etc.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	4	8	31	
32	Lightning	24	-	-	4	-	-	-	-	-	-	-	-	-	4	-	-	4	-	-	8	-	128	8	-	8	-	188	32	
33	Lime	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	4	33	
34	Locomotives, sparks from	8	-	-	4	12	-	-	12	4	-	4	-	84	8	-	-	-	-	-	4	-	8	-	4	4	20	176	34	
35	Malicious ignition(1)(2)	36	-	-	-	4	4	4	8	-	4	4	-	4	32	36	20	8	-	-	28	12	64	20	44	28	16	376	35	
36	Matches	12	-	-	-	28	4	4	-	12	4	8	4	-	20	36	-	8	8	-	28	20	216	44	24	40	8	528	36	
37	Matches, children with(5)	252	4	20	4	24	16	20	16	36	12	312	16	4	136	160	44	8	20	-	132	80	356	116	60	320	1 996	4 164	37	
38	Mechanical heat or sparks	16	-	-	44	100	160	32	28	4	12	-	56	4	16	8	12	-	4	-	4	-	-	-	4	12	4	520	38	
39	Metal, hot	-	-	-	-	96	-	-	-	-	4	12	4	4	-	-	-	-	-	-	-	-	16	8	4	-	-	146	39	
40	Naked light (1)(3)	72	-	-	-	20	8	4	-	8	-	16	4	-	8	32	4	8	12	-	20	8	72	8	20	44	16	384	40	
	Column No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27		

For explanation of notes see page 25.

51	Smoking materials	116	-	20	24	176	52	64	28	68	36	160	52	8	208	376	176	132	58	4	200	204	1 284	480	304	160	272	4 660	51	
52	Spontaneous combustion in rubbish	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	8	52	
53	in other materials	32	4	-	12	16	12	8	8	8	-	-	4	8	8	-	8	-	-	-	4	-	16	-	56	8	-	212	53	
54	Static electricity	-	-	-	4	-	-	12	-	-	4	-	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	32	54	
55	Steam roller, engine, traction engine	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	55	
56	Sun's rays	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	16	4	-	8	-	36	56	
57	Taper, lighted paper or sticks	-	-	-	-	4	-	-	-	-	4	4	-	-	8	36	-	8	4	-	4	-	-	84	40	8	12	8	224	57
58	Taper, lighted paper or sticks, children with ⁽⁵⁾	-	-	-	8	4	-	-	-	-	-	4	-	8	4	-	-	-	-	-	8	8	60	16	-	4	4	128	58	
59	Miscellaneous and undefined ⁽⁴⁾	32	-	8	44	60	28	4	24	20	16	36	4	12	8	-	4	-	4	-	20	12	144	8	8	20	16	532	59	
60	Unknown source of ignition	616	4	32	60	256	88	48	28	108	44	176	32	16	304	340	140	52	56	-	216	108	720	160	124	448	372	4 548	60	
61	Total fires in buildings	2 308	84	132	360	1 532	484	380	356	500	260	1 288	344	148	1 872	2 552	664	540	408	24	1 616	648	16 560	4 264	2 500	1 952	3 040	44 816	61	
	Column No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27		

For explanation of notes see page 25.

SECTION II

Table 5B

SUPPOSED CAUSE OF FIRES OTHER THAN THOSE IN BUILDINGS IN RELATION TO HAZARD IN WHICH FIRE STARTED
Reports from England and Wales, 1958

(Frequencies obtained by multiplying results of analysis of a one-in-four sample of reports by four)

Row No.	Supposed cause of fire	Column No.																						Row No.	
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22		
		Hazard in which fire started										Transport and communications				Outdoor storage				Total					
		Crops	Agricultural machinery	Agricultural waste	Agricultural, other	Gardens and allotments	Railway embankments	Grassland, heathland	Woods, forests, plantations	Single trees	Felled timber	Air	Rail	Road-oil, petrol or gas driven vehicles	Road - other vehicles	Water	Chemicals, explosives, ammunition, oils, grease	Coal and Coke	Refuse	Timber	Other materials	Miscellaneous outdoor structures	Total		
1	Aircraft crashed	-	-	-	-	-	-	-	-	-	-	32	-	-	-	-	-	-	-	-	-	-	-	32	1
2	Ashes, soot	-	-	-	-	-	28	-	-	-	-	-	20	256	-	-	32	-	32	704	24	20	24	1 192	2
3	Brazier	-	-	-	4	12	-	-	-	-	-	-	-	12	4	-	-	4	-	-	12	4	56	104	3
4	Camp fire, fire in open air(1)	-	-	-	-	-	-	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-	48	4
5	Candle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	4	16	24	5
6	Chimney on fire, not confined to chimney	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	4	6
7	Chimney, sparks from (outside building)	8	-	-	-	-	-	12	-	4	-	-	-	4	-	-	-	-	-	-	-	-	4	32	7
8	Cooker cooking range, oven, other than electric, coal gas or oil(1)	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	-	16	20	8
9	Electric cooker	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9
10	fire, heater, radiator	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	8	-	-	-	-	-	16	28	10
11	motor	-	-	-	-	-	-	-	-	-	-	-	-	4	16	-	-	-	-	-	-	-	16	36	11
12	refrigerator	-	-	-	-	-	-	-	-	-	-	-	-	4	-	4	-	-	-	-	-	-	16	24	12
13	wire and cable other than lead to apparatus	-	64	-	-	-	-	-	-	4	-	-	4	1 500	32	12	-	-	-	-	-	-	376	2 004	13
14	wire and cable lead to apparatus	-	12	-	-	-	-	-	-	-	-	-	4	236	16	-	-	-	-	-	-	-	4	272	14
15	wireless	-	-	-	-	-	-	-	-	-	-	-	-	20	-	-	-	-	-	-	-	-	-	20	15

16	Electric, other apparatus	-	16	-	-	-	-	-	-	-	-	4	348	20	32	8	-	4	-	-	460	892	16	
17	Explosives, fireworks	16	-	-	8	4	-	48	-	52	-	4	48	-	-	4	-	28	-	16	236	464	17	
18	Fire in grate igniting, bedding, clothing, linen other materials	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	4	8	18	
19	Fish frying range (all fuels)	-	-	-	-	-	-	-	-	-	-	-	8	-	-	-	-	-	-	-	8	8	19	
20	Flue	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	20	
21	Furnace (coal or coke)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	21	
22	Gas (town) burner, jet, ring	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	22	
23	fire, heater, radiator	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	4	24	
24	other apparatus	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	232	236	25	
25	Incubator, brooder, (all fuels)	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	16	20	26
26	Intentional burning of grassland, gorse, etc.	4	-	-	-	4	20	468	12	8	-	-	-	-	-	-	4	4	-	4	-	16	544	27
27	Lightning	32	-	-	-	-	-	4	-	8	-	-	-	-	-	-	8	-	-	-	-	24	76	28
28	Lime	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8	-	-	-	-	4	16	29
29	Locomotives, sparks from	140	-	-	28	12	2,832	1 528	28	8	-	124	8	-	4	4	-	60	84	16	168	5 044	30	
30	Malignant ignition (1)(2)	24	-	-	-	-	-	-	4	-	-	-	32	4	-	-	-	16	8	4	20	112	31	
31	Matches	8	-	-	-	8	4	156	8	4	-	-	44	-	-	12	-	72	-	-	68	384	32	
32	Matches children with(5)	236	-	40	60	60	180	8 148	92	864	44	-	12	276	8	-	52	-	2 888	252	196	476	13 684	33
33	Mechanical heat or sparks	-	-	-	-	-	-	-	-	-	-	8	4	468	8	16	68	-	4	-	24	604	34	
34	Metal hot	-	-	-	-	-	-	-	-	-	-	4	20	-	-	8	4	-	4	-	8	48	35	
35	Naked light(1)(3)	44	-	-	-	-	4	408	36	4	-	4	28	4	8	4	-	72	16	24	48	704	36	
36	Oil blow lamp	-	-	-	-	4	-	8	-	-	-	-	-	-	4	-	-	-	-	-	20	36	37	
37	engine (including petrol)	8	12	-	4	-	-	4	4	-	16	-	2 520	-	32	-	-	4	-	4	32	2 640	38	
38	lamp	-	-	-	-	-	-	-	-	-	-	4	136	8	4	4	-	-	-	4	92	252	39	
39	stove	-	-	-	-	-	-	4	-	-	-	-	16	4	24	-	-	-	-	-	40	88	40	
40	tractor	20	164	-	4	-	-	-	-	-	-	-	24	-	-	-	-	-	-	-	-	-	212	41
41	other apparatus	12	120	-	4	-	-	-	-	-	-	-	8	-	16	-	-	-	-	-	32	192	42	
42	Oxyacetylene cutting and welding apparatus	-	4	-	-	-	-	4	-	-	-	12	64	-	104	28	-	12	56	36	112	432	43	
43	Rubbish burning	108	8	56	68	76	24	896	24	92	28	-	4	64	4	60	8	1 192	356	112	192	3 376	44	
44	Slow combustion stove igniting structural woodwork	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	45
45	other materials	-	-	-	4	-	-	4	-	-	-	4	20	-	20	8	-	-	-	-	240	300	46	
46	Smoking materials	76	4	4	40	36	24	2 020	48	36	-	16	472	24	72	36	4	692	128	240	404	4 376	47	
47	Spontaneous combustion in rubbish	-	-	-	4	-	-	-	-	-	-	4	-	-	-	-	-	56	-	-	4	68	48	
48	in other materials	72	4	-	-	-	-	4	-	-	-	-	8	-	8	32	8	16	4	36	-	192	49	
49	Static electricity	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	50	
50	Steam roller, engine, traction engine	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	4	51
51	Sun's rays	-	-	-	-	-	-	20	-	-	-	4	-	-	-	-	-	-	-	-	-	24	52	
52	Taper, lighted paper or sticks	-	-	-	-	4	-	28	-	-	-	-	4	-	-	4	-	4	4	16	16	80	53	
53	Taper, lighted paper or sticks children with(5)	-	-	-	4	-	-	12	-	-	-	-	8	-	-	-	-	8	-	4	40	76	54	
54	Miscellaneous and undefined (4)	8	-	-	-	-	4	28	-	-	4	8	28	-	24	24	16	4	4	12	96	280	55	
55	Unknown source of ignition	296	16	20	44	-	108	2 880	76	168	8	8	28	656	12	32	112	8	748	180	172	408	5 980	56
56	Total fires other than those in buildings	1 112	424	124	276	224	3 228	16 768	332	1 060	80	76	272	7 352	164	476	488	84	6 596	1 132	924	4 364	45 556	57
	Column No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	

For explanation of notes see page 25.

SECTION II

Table 6

MATERIAL FIRST IGNITED IN FIRES

Reports from England and Wales, 1958

(Frequencies obtained by multiplying results of analysis of a one-in-four sample of reports by four)

Material first ignited	Fires in buildings		Fires other than those in buildings		Total	
	No.	Per cent	No.	Per cent	No.	Per cent
<u>Agriculture and Forestry</u>						
Crops, ricks, stacks						
Barley	4	-	84	0.1	88	0.1
Hay	244	0.3	308	0.3	552	0.6
Straw	136	0.2	220	0.2	356	0.4
Stubble	-	-	20	-	20	-
Other	20	-	112	0.1	132	0.1
Loose straw or hay	704	0.8	516	0.6	1 220	1.4
Grass, heather, bracken	64	0.1	15 080	16.7	15 144	16.8
Trees, hedges, undergrowth brushwood, bushes (including gorse), twigs, touchwood	12	-	3 304	3.7	3 316	3.7
Other agricultural materials	20	-	120	0.1	140	0.2
Total	1 204	1.3	19 764	21.9	20 968	23.2
<u>Chemicals - gases</u>						
Acetylene	44	-	12	-	56	0.1
Town gas	944	1.0	508	0.6	1 452	1.6
Other gases	88	0.1	72	0.1	160	0.2
Total	1 076	1.2	592	0.7	1 668	1.8
<u>Chemicals - oils</u>						
Animal and vegetable oils	120	0.1	-	-	120	0.1
Mineral oil						
Paraffin	2 088	2.3	168	0.2	2 256	2.5
Petrol in vehicles	324	0.4	2 940	3.3	3 264	3.6
Petrol not in vehicles	340	0.4	108	0.1	448	0.5
Other mineral oils	168	0.2	168	0.2	336	0.4
Oil, waste and undefined	460	0.5	448	0.5	908	1.0
Total	3 500	3.9	3 832	4.2	7 332	8.1
<u>Chemicals - other</u>						
Celluloid (including films)	4	-	-	-	4	-
Paint, enamel, lacquer, varnish, stains and French polish	160	0.2	32	-	192	0.2
Pitch, tar	104	0.1	128	0.1	232	0.3
Rubber, vulcanite, ebonite	140	0.2	280	0.3	420	0.5
Other chemicals	828	0.9	316	0.3	1 144	1.3
Total	1 236	1.4	756	0.8	1 992	2.2
<u>Paper, cardboard, wood (not part of a structure)</u>						
Paper, cardboard	2 352	2.6	1 236	1.4	3 588	4.0
Wood chippings, flour, sawdust, shavings, wool	480	0.5	204	0.2	684	0.8
Wood barrels, boxes, cases, firewood etc.	556	0.6	108	0.1	664	0.7
Timber	176	0.2	512	0.6	688	0.8
Total	3 564	3.9	2 060	2.3	5 624	6.2

SECTION II

Table 6 (Contd.)

MATERIAL FIRST IGNITED IN FIRES

Reports from England and Wales, 1958

(Frequencies obtained by multiplying results of analysis of a one-in-four sample of reports by four)

Material first ignited	Fires in buildings		Fires other than those in buildings		Total	
	No.	Per cent	No.	Per cent	No.	Per cent
<u>Textiles</u>						
Canvas and canvas goods	72	0.1	184	0.2	256	0.3
Clothing on person	368	0.4	40	-	408	0.5
Clothing not on person	1 344	1.5	128	0.1	1 472	1.6
Cotton	176	0.2	44	-	220	0.2
Jute, hessian, sacking	404	0.4	204	0.2	608	0.7
Rags, (including oily rags)	316	0.3	224	0.2	540	0.6
Tarpaulin, waterproof sheeting, oilskins	108	0.1	476	0.5	584	0.6
Other textiles	188	0.2	40	-	228	0.3
Total	2 976	3.3	1 340	1.5	4 316	4.8
<u>Furniture, furnishings, household goods</u>						
Bedding	1 272	1.4	80	0.1	1 352	1.5
Carpets, rugs	544	0.6	40	-	584	0.6
Curtains	720	0.8	8	-	728	0.8
Furniture	2 104	2.3	40	-	2 144	2.4
Linen articles (unspecified), laundry	440	0.5	24	-	464	0.5
Seating in vehicles	44	-	344	0.4	388	0.4
Other furnishings	732	0.8	40	-	772	0.9
Total	5 856	6.5	576	0.6	6 432	7.1
<u>Building materials, structural woodwork</u>						
Building materials other than wood	804	0.9	4	-	808	0.9
Structural woodwork						
External	600	0.7	-	-	600	0.7
Internal						
Door, window frame	420	0.5	-	-	420	0.5
Floor, stairs	960	1.1	-	-	960	1.1
Partitions, linings to walls	696	0.8	-	-	696	0.8
Roof	704	0.8	-	-	704	0.8
Timber in chimney, flue	448	0.5	-	-	448	0.5
Timber under hearth	1 384	1.5	-	-	1 384	1.5
Other fittings	944	1.0	-	-	944	1.0
Not known whether internal or external	72	0.1	-	-	72	0.1
Structural woodwork, other than buildings	-	-	900	1.0	900	1.0
Total	7 032	7.8	904	1.0	7 936	8.8
<u>Miscellaneous</u>						
Coal, coke	68	0.1	136	0.2	204	0.2
Electrical insulation	3 428	3.8	2 408	2.7	5 836	6.5
Fat (margarine, suet, butter, cooking fat, lard)	2 696	3.0	16	-	2 712	3.0
Food other than fat	460	0.5	8	-	468	0.5
Refuse, rubbish, debris	4 160	4.6	7 220	8.0	11 380	12.6
Soot	372	0.4	-	-	372	0.4
Other	3 064	3.4	1 364	1.5	4 428	4.9
<u>Unknown</u>	4 124	4.6	4 580	5.1	8 704	9.6
Total fires attended	44 816	49.6	45 556	50.4	90 372	100.0

SECTION II

Table 7B

MATERIAL FIRST IGNITED IN FIRES IN HAZARDS OTHER THAN BUILDINGS IN RELATION TO SUPPOSED CAUSE

Reports from England and Wales 1958

(Frequencies obtained by multiplying the results of analysis of a one-in-four sample of reports by four)

Row No.	Column No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	Row No.							
	Supposed cause of fire	Material first ignited																																																	
		Agriculture and forestry	Chemicals - gases	Chemicals - oils		Chemicals - other	Paper, cardboard, wood, not structural	Textiles				Furniture, furnishings, household goods	Building materials structural woodwork	Miscellaneous material										Total																											
Crops, ricks and stacks Loose straw or hay Other agricultural materials Acetylene Town gas Other gases Animal and vegetable oils Paraffin Petrol in vehicles Petrol not in vehicles Other mineral oils Oil, waste and undefined Paints, enamel, lacquer, varnish etc. Pitch, tar Rubber, vulcanite, ebonite Other chemicals, including celluloid and celluloid goods Paper, cardboard Wooden packing materials Timber Clothing on person Clothing not on person Cotton Jute, hessian, sacking Rags including oily rags Tarpaulins, waterproof sheeting, oilskins Other textiles including canvas and canvas goods Soft furnishings Furniture Linen articles, (unspecified) laundry Seating in vehicles Other furnishings Building materials other than wood Structural woodwork other than in buildings Structural woodwork external Coal, coke Electrical insulation Food Refuse, rubbish, debris Soot Other materials Unknown material																																																			
1	Aircraft, crashed																																																		
2	Ashes, soot	4																																																	
3	Brazier	4		40																																															
4	Camp fire, fire in open air (1)			40																																															
5	Candle																																																		
6	Chimney on fire, not confined to chimney																																																		
7	Chimney sparks from outside building	4	4	16																																															
8	Cooker, cooking range, oven, other than electric, coal, gas, or oil																																																		
9	Electric cooker																																																		
10	fire, heater, radiator																																																		
11	motor																																																		
12	refrigerator																																																		
13	wire and cable, other than lead to apparatus			8																																															
14	wire and cable, lead to apparatus	4																																																	
15	wireless																																																		
16	other apparatus					8			4	136																																									
17	Explosives, fireworks	16	4	96		4				4	4																																								
18	Fire in grate, igniting bedding, clothing, linen																																																		
19	other materials																																																		
20	Fish frying range all fuels								4																																										
21	Flue																																																		
22	Furnace coal or coke																																																		
23	Gas (town) burner, jet, ring																																																		
24	fire, heater, radiator																																																		
25	other apparatus					220																																													
26	Incubator, brooder (all fuels)	4	4						4																																										
27	Intentional burning of grassland, gorse etc.			512																																															
28	Lightning	32		16						4			12																																						
29	Line																																																		
30	Locomotives, sparks from	116	78	4 428		4						4	4					8	4	40	4																														
31	Malicious ignition (1) (2)																																																		
32	Matches	8		176						16	8																																								
33	Matches, children with (5)	198	158	8 800		12	4		12	32	8		4	24			4	20	12																																
34	Mechanical heat and sparks					60				52			16	80																																					
35	Metal, hot																																																		

For explanation of notes see page 25.

SECTION II
Table 7B (Contd.)

MATERIAL FIRST IGNITED IN FIRES IN HAZARDS OTHER THAN BUILDINGS IN RELATION TO SUPPOSED CAUSE

Reports from England and Wales 1968

(Frequencies obtained by multiplying the results of analysis of a one-in-four sample of reports by four)

Row No.	Supposed cause of fire	Material first ignited																																										Row No.	
		Agriculture and forestry		Chemicals - gases		Chemicals - oils			Chemicals - other			Paper, cardboard, wood, not structural			Textiles			Furniture, furnishings, household goods			Building materials, structural woodwork			Miscellaneous material																					
		Crops, ricks and stacks	Loose straw or hay	Other agricultural materials	Acetylene	Town gas	Other gases	Animal and vegetable oils	Paraffin	Petrol in vehicles	Petrol not in vehicles	Other mineral oils	Oil, waste and undefined	Paint, enamel, lacquer, varnish etc.	Pitch, tar	Rubber, vulcanite, ebonite	Other chemicals, including celluloid and celluloid goods	Paper, cardboard	Wooden packing materials	Timber	Clothing on person	Clothing not on person	Cotton	Jute, hessian, sacking	Rags including oily rags	Tarpaulins, waterproof sheeting, oilskins	Other textiles including canvas and canvas goods	Soft furnishings	Furniture	Linen articles, (unspecified) laundry	Seating in vehicles	Other furnishings	Building materials other than wood	Structural woodwork other than in buildings	Structural woodwork external	Coal, coke	Electrical insulation	Food	Refuse, rubbish, debris	Soot	Other materials	Unknown material	Total		
36	Naked light (1) (3)	40	18	456	-	4	-	-	-	-	-	-	-	-	4	-	44	8	4	-	4	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	36	
37	Oil, blowlamp	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	37
38	engine (including petrol)	8	4	4	-	-	-	-	-	-	-	-	-	-	-	-	20	-	-	-	24	4	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	38
39	lamp	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	39
40	stove	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	40
41	tractor	24	18	-	-	-	-	-	-	32	104	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	41	
42	other apparatus	12	24	20	-	-	-	-	-	4	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	42	
43	Oxyacetylene cutting and welding apparatus	-	4	4	12	-	-	-	-	4	16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	43	
44	Rubbish burning	100	48	1 160	-	4	-	-	-	8	8	20	-	-	-	-	36	108	240	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	44
45	Slow combustion stove igniting structural woodwork	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	45
46	other materials	-	-	4	-	-	-	-	-	4	4	-	-	-	68	64	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	46
47	Smoking materials	68	98	2 104	-	12	-	-	-	24	8	-	-	-	19	28	224	76	16	4	36	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	47
48	Spontaneous combustion in rubbish	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	48	
49	in other materials	76	-	12	-	-	-	-	-	-	-	-	-	-	-	24	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	49	
50	Static electricity	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	50	
51	Steamroller, engine, traction engine	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	51	
52	Sun's rays	-	4	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	52	
53	Taper, lighted paper or sticks	-	-	28	-	-	-	-	-	-	-	-	-	-	-	-	24	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	53
54	Taper, lighted paper or sticks children with (5)	-	4	12	-	-	-	-	-	4	-	-	-	-	4	-	36	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	54
55	Miscellaneous and undefined (4)	4	8	32	-	8	32	-	-	4	4	4	16	-	8	20	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	55
56	Unknown source of ignition	44	28	488	-	20	12	-	-	96	20	4	20	8	4	32	60	24	16	-	-	16	-	12	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	56
57	Total fires other than those in buildings	744	516	18 504	12	508	72	-	168	2 940	108	168	448	32	128	280	316	1 236	312	512	40	128	44	204	224	476	224	128	40	24	344	40	4	900	-	136	2 408	24	7 220	-	1 384	4 560	45 556	57	

For explanation of notes see page 25.

SECTION II

Table 8

METHOD OF EXTINCTION OF FIRES

Reports from England and Wales, 1958

(Frequencies obtained by multiplying results of analysis of a one-in-four sample of reports by four)

ROW No.	Method of extinction	Fires in buildings						Fires other than those in buildings						Total No. of fires		ROW No.
		Extinguished by Fire Brigade		Extinguished before arrival of Fire Brigade		Total		Extinguished by Fire Brigade		Extinguished before arrival of Fire Brigade		Total				
		No.	Per cent	No.	Per cent	No.	Per cent	No.	Per cent	No.	Per cent	No.	Per cent.	No.	Per cent	
1	Burned out	-	-	980	1.1	980	1.1	-	-	1 380	1.5	1 380	1.5	2 340	2.6	1
2	Removal	2 488	2.8	1 348	1.5	3 836	4.2	720	0.8	400	0.4	1 120	1.2	4 956	5.5	2
3	Automatic sprinkler system	-	-	48	-	48	-	-	-	-	-	-	-	48	-	3
4	Beating	64	0.1	240	0.3	304	0.3	9 944	11.0	1 084	1.2	11 028	12.2	11 332	12.5	4
5	Smothering	392	0.4	756	0.8	1 148	1.3	72	0.1	436	0.5	508	0.6	1 656	1.8	5
6	Sand, earth, etc.	40	-	228	0.3	268	0.3	92	0.1	392	0.4	484	0.5	752	0.8	6
7	Water from buckets	1 908	2.1	3 020	3.3	4 928	5.5	344	0.4	840	0.9	1 184	1.3	6 112	6.8	7
8	Water from stirrup or hand pumps	2 356	2.6	68	0.1	2 424	2.7	148	0.2	12	-	180	0.2	2 584	2.9	8
9	Chemicals and chemical extinguishers	1 700	1.9	1 284	1.4	2 984	3.3	1 800	2.0	928	1.0	2 728	3.0	5 712	6.3	9
10	Two or more methods 4 - 9	156	0.2	400	0.4	556	0.6	328	0.4	192	0.2	520	0.6	1 076	1.2	10
11	Water from garden hose etc.	-	-	120	0.1	120	0.1	-	-	100	0.1	100	0.1	220	0.2	11
12	Hose reel jets (using water in tank only)	18 704	20.7	44	-	18 748	20.8	19 376	21.4	132	0.1	19 508	21.6	38 256	42.3	12
13	Hose reel jets (using more water than that in tank)	1 892	2.1	-	-	1 892	2.1	1 060	1.2	12	-	1 072	1.2	2 964	3.3	13
14	Jets from inside hose reel or inside hydrant	112	0.1	104	0.1	216	0.2	4	-	4	-	8	-	224	0.2	14
15	Hose reel jets and jets from inside hose reel or inside hydrant	16	-	-	-	16	-	8	-	-	-	8	-	24	-	15
16	Jets from pumps and hydrants	5 276	5.8	88	0.1	5 364	5.9	5 236	5.8	148	0.2	5 384	6.0	10 748	11.9	16
17	Other and undefined methods	392	0.4	592	0.7	984	1.1	88	0.1	296	0.3	384	0.4	1 368	1.5	17
18	Total fires attended	35 496	39.3	9 320	10.3	44 816	49.6	39 220	43.4	6 336	7.0	45 556	50.4	90 372	100.0	18

Notes on method of extinction -

1. "Removal" includes occurrences where (a) burning material was removed from the building, (b) gas supply was turned off. If the burning material was tackled with methods 3-11 before removing it from the building, then such occurrences were classified under whichever of these methods applied.
2. Methods 11-15 and method 16 include those occurrences in which methods 3-10 and 3-15 respectively may also have been used.
3. "Fires extinguished by Fire Brigade" include those fires which were tackled but not extinguished before the arrival of the Fire Brigade.

SECTION II

Table 9

BEHAVIOUR OF SPRINKLER SYSTEMS AT FIRES

Reports from England and Wales, 1958

(Frequencies observed in the analysis of a one-in-four sample of reports)

Note: These figures are not on a comparable basis with those in tables 1-8 or tables 10-12

Fires in Buildings

Behaviour of sprinklers	Incidents in which the following number of heads were actuated						Total number of incidents
	Nil	1-5	6-10	11-20	More than 20	Number not reported	
Installed but did not operate:-							
(i) because insufficient heat was generated by the fire	48	-	-	-	-	-	48
(ii) because the seat of the fire was out of range of the sprinklers	2	-	-	-	-	-	2
(iii) because the fire was tackled and extinguished by other means	4	-	-	-	-	-	4
(iv) System closed down	2	-	-	-	-	-	2
(v) extractor fan drew heat outside the building	1	-	-	-	-	-	1
(vi) no reason given	1	-	-	-	-	-	1
Total	58	-	-	-	-	-	58
Operated, but did not control fire because:-							
(i) other means were used to extinguish the fire	-	1	-	-	-	-	1
(ii) fire was not in range of system in commission	-	-	-	-	1	-	1
(iii) No reason given	-	1	-	-	-	-	1
Total	-	2	-	-	1	-	3
Controlled, but did not extinguish the fire	-	36	6	3	7	2	54
Extinguished the fire	-	10	-	-	-	2	12
Number of calls to fires where sprinkler systems were installed	58	48	6	3	8	4	127

Note: In addition one outbreak of fire in a metal hopper containing wood chips was controlled by 3 heads of the installed system.

SECTION II

Table 10

PERSONS RESCUED OR ESCAPED BY EMERGENCY MEANS FROM FIRES

Reports from England and Wales, 1958

(Frequencies obtained from results of analysis of all reports)

Appliance or method used	Number of persons
Rescue with Fire Brigade assistance from	
Aircraft	3
Buildings	
Automatic escape lines	1
Escape, hand operated	16
Ladder, extension	77
first floor	8
hook	2
scaling	2
turntable (mechanical)	1
other or undefined	24
Ladder and line	2
Oxyacetelene cutting gear	4
Without apparatus	131
Ships	2
Caravans	3
Total	276
Rescue without F.B. assistance from	
Aircraft	1
Buildings	
Carried or assisted out	256
Jumping sheet	2
Ladder	60
Lowered from windows, roof, etc.	62
Other or undefined methods	17
Road vehicles	10
Ships	7
Caravans	2
Total	417
Escape by emergency means from	
Aircraft	
Baled out	9
Buildings	
Climbing over roof	45
Fixed fire escape	18
Jumping from upstairs window, roof	113
Ladder	20
Sliding down drainpipe, sheets, rope etc.	44
Through ground floor windows	22
Other or undefined methods	15
Road vehicles	27
Ships	1
Caravans	2
Total	316
Total persons rescued or escaped	1 009

Note: In addition, one man was rescued, without Fire Brigade assistance, from a lime pitch and two men escaped from a temporary farm building.

SECTION II

Table 11

NATURE OF INJURIES OF CASUALTIES IN FIRES

Reports from England and Wales, 1958

(Frequencies obtained from results of analysis of all reports)

Nature of injury	Fire Brigade	Other Casualties	Total
Fatal casualties			
Burns and scalds	-	302	302
Overcome by gas or smoke	2	78	80
Other and undefined injuries	-	13	13
Total	2	393	395
Non-fatal casualties**			
Burns and scalds	57	2 007	2 064
Bruises, cuts, abrasions	115	121	236
Dislocations, sprains, fractures	22	26	48
Overcome by gas or smoke	29	188	217
More than one of the above injuries	6	58	64
* Shock	2	231	233
Other and undefined injuries	54	52	106
Total	285	2 683	2 968
Total casualties	287	3 076	3 363

** Excludes casualties requiring first-aid treatment only.

* Casualties who suffered shock in addition to another injury have been classified according to the nature of the other injury.

SECTION II

Table 12

FIRES CLASSIFIED ACCORDING TO THE MONTH IN WHICH THEY OCCURRED

Reports from England and Wales, 1958

(Frequencies obtained by multiplying the results of analysis
of a one-in-four sample of reports by four)

Month of occurrence	Fires in buildings		Fires other than those in buildings		Total	
	No.	Per cent	No.	Per cent	No.	Per cent
January	4 480	5.0	1 636	1.8	6 116	6.8
February	3 892	4.3	1 908	2.1	5 800	6.4
March	4 976	5.5	6 940	7.7	11 916	13.2
April	4 520	5.0	12 104	13.4	16 624	18.4
May	3 580	4.0	5 524	6.1	9 104	10.1
June	2 756	3.1	2 184	2.4	4 940	5.5
July	2 736	3.0	2 884	3.2	5 620	6.2
August	2 736	3.0	2 276	2.5	5 012	5.5
September	3 028	3.4	2 692	3.0	5 720	6.3
October	3 692	4.1	3 192	3.5	6 884	7.6
November	4 044	4.5	2 788	3.1	6 832	7.6
December	4 376	4.8	1 428	1.6	5 804	6.4
Total fires	44 816	49.6	45 556	50.4	90 372	100.0

SECTION III

STATISTICAL TABLES FOR FIRE BRIGADES IN SCOTLAND, 1958

Table 1

METHOD OF CALLING FIRE BRIGADES TO FIRES

Reports from Scotland, 1958

(Frequencies obtained by multiplying results of analysis
of a one-in-four sample of reports by four)

Method of calling	Fire Brigade											Total	
	Glasgow	Lanark	Central	Western	South Western	South Eastern	Fife	Perth and Kinross	Angus	North Eastern	Northern	No.	Per cent
By Special Fire Service methods													
Automatic fire alarm	20	-	8	-	-	8	-	-	-	-	-	36	0.3
Fire and police pillar box	28	-	8	4	-	8	-	-	-	-	-	48	0.5
Police telephone	416	72	40	116	28	272	20	8	128	76	24	1 200	11.6
Private fire telephone	12	4	-	4	16	4	8	-	4	-	-	52	0.5
Street fire alarm	128	-	-	-	-	-	-	-	-	-	-	128	1.2
Total	604	76	56	124	44	292	28	8	132	76	24	1 464	14.1
Exchange telephone	1 436	808	448	572	524	1 000	372	220	440	620	196	6 636	64.1
Running call	168	32	52	32	20	68	28	4	12	16	-	432	4.2
Late call	12	8	20	8	4	4	16	-	-	-	-	72	0.7
Other and undefined methods	320	288	172	348	116	148	100	48	104	68	36	1 748	16.9
Total fires	2 540	1 212	748	1 084	708	1 512	544	280	688	780	256	10 352	100.0

N.B. A change in reporting procedure instituted in 1958 has resulted in an increase in the number of incidents where the method of call was undefined.

SECTION III

Table 2

FIRES CLASSIFIED ACCORDING TO HAZARD IN WHICH FIRE STARTED

Reports from Scotland, 1958

(Frequencies obtained by multiplying results of analysis of a one-in-four sample of reports by four)

Hazard in which fire started	Total	
	No.	Per cent
Fires in buildings classified according to trade or business carried on		
<u>Agriculture</u>		
Farming (not fruit or poultry) and horse and stock rearing	216	2.1
Allotments, market gardening, fruit and poultry farming	36	0.3
Total	252	2.4
<u>Mining, quarrying and treatment of non-metalliferous mine and quarry products (excluding gas works)</u>	12	0.1
<u>Manufacture of bricks, pottery, glass, etc.</u>	16	0.2
<u>Manufacture of chemicals, dyes, explosives, paint, oils</u>		
Chemicals	4	-
Explosives	4	-
Paints, varnish, oils, grease	8	0.1
Miscellaneous	-	-
Total	16	0.2
<u>Manufacture of metals, machines, implements, conveyances</u>		
Smelting, converting, refining, rolling of iron, steel	4	-
Extracting, refining, smelting of other metals	-	-
Founding, other secondary processes in metal working	8	0.1
Engineering (not marine or electrical)	32	0.3
Electrical installations, cables and apparatus	28	0.3
Construction and repair of vehicles	16	0.2
Shipbuilding and repairing, marine engineering	36	0.3
Cutlery and small tools	16	0.2
Other metal industries	-	-
Total	140	1.4
<u>Manufacture of textiles and textile goods (not dress)</u>		
Cotton	16	0.2
Wool, worsted and shoddy	4	-
Silk, natural and artificial	-	-
Other or mixed fibres	16	0.2
Miscellaneous	24	0.2
Textile dyeing, printing, bleaching, finishing	-	-
Total	60	0.6

SECTION III

Table 2 (Contd.)

FIRES CLASSIFIED ACCORDING TO HAZARD IN WHICH FIRE STARTED

Reports from Scotland, 1958

(Frequencies obtained by multiplying results of analysis
of a one-in-four sample of reports by four)

Hazard in which fire started	Total	
	No.	Per cent
Fires in buildings classified according to trade or business carried on (contd.)		
<u>Preparation of skins and leather and manufacture of goods of leather and leather substitute (not clothing or footwear)</u>	16	0.2
<u>Manufacture of clothing (not knitted) including footwear</u>	20	0.2
<u>Manufacture of food, drink, tobacco</u>		
Food	72	0.7
Drink	24	0.2
Tobacco, cigars, cigarettes, snuff	-	-
Total	96	0.9
<u>Woodworking: manufacture of cane and basket ware, furniture, fittings</u>		
Woodworking and basket ware	32	0.3
Furniture (not metal or basket)	12	0.1
Fittings	-	-
Total	44	0.4
<u>Paper making: manufacture of stationery and stationery requisites, printing and bookbinding</u>	28	0.3
<u>Building, decorating, contracting; slate and stone cutting and dressing</u>	208	2.0
<u>Rubber and synthetic rubber</u>	4	-
<u>Other manufacturing industries</u>	12	0.1
<u>Gas, water, electricity, sewage</u>	24	0.2
<u>Transport and communication</u>		
Railway - stations, etc.	76	0.7
Road - garages, depots, etc.	100	1.0
Water - dock buildings other than warehouses	16	0.2
Air - aerodromes, etc.	-	-
Other communication (post, telephone, wireless)	24	0.2
Total	216	2.1
<u>Commerce</u>		
Departmental stores	12	0.1
Retail shops	424	4.1
Wholesale dealers	52	0.5
Dock and other warehouses	4	-
Total	492	4.8

SECTION III

Table 2 (Contd.)

FIRES CLASSIFIED ACCORDING TO HAZARD IN WHICH FIRE STARTED

Reports from Scotland, 1958

(Frequencies obtained by multiplying results of analysis
of a one-in-four sample of reports by four)

Hazard in which fire started	Total	
	No.	Per cent
Fires in buildings classified according to trade or business carried on (contd.)		
<u>Offices, Government and other</u>		
Government departments	-	-
Local authorities	8	0.1
Other offices	72	0.7
Total	80	0.8
<u>Navy, Army and Air Force establishments</u>	16	0.2
<u>Fire Service establishments</u>	-	-
<u>Professional establishments (other than offices): public institutions</u>		
Educational establishments	84	0.8
Hospitals, homes, etc. for the care of the sick and infirm	48	0.5
Places of worship	24	0.2
Other public and professional services	60	0.6
Total	216	2.1
<u>Places of public entertainment</u>		
Cinemas and theatres	12	0.1
Other places of entertainment	76	0.7
Total	88	0.9
<u>Private residential and personal service (including hotels and catering)</u>		
Private residential houses	1 116	10.8
Private residential flats and maisonettes	1 980	19.1
Clubs, hotels, restaurants, public houses	280	2.7
Private huts, unoccupied houses, personal service	348	3.4
Total	3 724	36.0
<u>Miscellaneous</u>	564	5.4
<u>Undefined</u>	24	0.2
Total fires in buildings	6 368	61.5

SECTION III

Table 2 (Contd.)

FIRES CLASSIFIED ACCORDING TO HAZARD IN WHICH FIRE STARTED

Reports from Scotland, 1958

(Frequencies obtained by multiplying results of analysis
of a one-in-four sample of reports by four)

Hazard in which fire started	Total	
	No.	Per cent
Fires other than those in buildings		
<u>Agriculture and forestry</u>		
Crops, standing or stoked (including hay fields)	8	0.1
Crops, ricks and stacks	172	1.7
Agricultural machinery	40	0.4
Agricultural waste	8	0.1
Other agricultural hazards	24	0.2
Allotments and gardens	8	0.1
Railway embankments	320	3.1
Grassland, heathland	1 488	14.4
Woods, forests, plantations	80	0.8
Single trees	56	0.5
Felled timber	8	0.1
Total	2 212	21.4
<u>Transport and communications</u>		
Aircraft	4	-
Railway rolling stock, etc.	52	0.5
Road vehicles - electrically driven	48	0.5
- oil, petrol or gas driven	504	4.9
- other	-	-
Water vessels - craft on inland waters	-	-
- ships in dock	84	0.8
- ships at sea	-	-
- marine structures	12	0.1
Total	704	6.8
<u>Outdoor storage</u>		
Chemicals, explosives, ammunition, oils, grease	32	0.3
Coal and coke	4	-
Refuse	324	3.1
Timber	112	1.1
Cotton, metal, packing materials, rubber etc.	88	0.9
Total	560	5.4
<u>Other outdoor structures</u>	508	4.9
Total fires other than those in buildings	3 984	38.5
Total fires attended	10 352	100.0

SECTION III

Table 3

FIRES CLASSIFIED ACCORDING TO HAZARDS IN WHICH FIRE STARTED FOR EACH BRIGADE

Reports from Scotland, 1958

(Frequencies obtained by multiplying the results of analysis of a one-in-four sample of reports by four)

Hazard in which fire started	Fire Brigades											Total
	Glasgow	Lanark	Central	Western	South Western	South Eastern	Fife	Perth and Kinross	Angus	North Eastern	Northern	
Fires in Buildings												
Industrial premises	204	60	56	64	24	92	20	24	64	40	24	672
Commercial premises and offices	220	48	36	32	44	92	-	8	36	52	4	572
Transport and public utilities	72	16	24	28	20	36	24	-	4	8	8	240
Dwellings	796	296	176	280	216	624	200	68	136	232	72	3 096
Other buildings	500	188	112	156	160	172	72	48	156	168	56	1 788
Total	1 792	608	404	560	464	1 016	316	148	396	500	164	6 368
Fires not in buildings												
Agriculture, grassland and forestry	344	348	204	376	140	224	148	88	144	140	56	2 212
Transport	196	76	72	36	48	96	28	28	40	60	24	704
Outdoor storage	88	44	32	60	20	148	24	8	80	52	4	560
Other outdoor hazards	120	136	36	52	36	28	28	8	28	28	8	508
Total	748	604	344	524	244	496	228	132	292	280	92	3 984
Total fires attended	2 540	1 212	748	1 084	708	1 512	544	280	688	780	256	10 352

SECTION III

Table 4

SUPPOSED CAUSE OF FIRES

Reports from Scotland, 1958

(Frequencies obtained by multiplying results of analysis of a one-in-four sample of reports by four)

Each item in the list of supposed causes of fire given in this table represents a group of causes which have a common source of ignition. In some cases the groups have been divided into sub-groups according to the nature of the material first ignited and in others according to the act with the source of ignition which led to the outbreak of fire. Certain causes were specified for the first time in 1954, the miscellaneous item is therefore not comparable with those for years previous to 1954.

Supposed cause of fire	Fires in buildings		Fires other than those in buildings		Total	
	No.	Per cent	No.	Per cent	No.	Per cent
Aircraft, crashed	-	-	4	-	4	-
Ashes, soot	268	2.6	104	1.0	372	3.6
Brazier	-	-	12	0.1	12	0.1
Camp fire, fire in open air ⁽¹⁾	-	-	8	0.1	8	0.1
Candle	52	0.5	-	-	52	0.5
Chimney on fire, not confined to chimney	596	5.8	-	-	596	5.8
Chimney sparks from (outside building)	28	0.3	4	-	32	0.3
Cooker, cooking range, oven other than electric, coal gas, or oil ⁽¹⁾	20	0.2	4	-	24	0.2
Electric cooker	144	1.4	-	-	144	1.4
fire, heater, radiator	116	1.1	-	-	116	1.1
iron	24	0.2	-	-	24	0.2
motor	44	0.4	4	-	48	0.5
refrigerator	52	0.5	-	-	52	0.5
television	40	0.4	-	-	40	0.4
wire and cable, other than lead to apparatus	240	2.3	140	1.4	380	3.7
wire and cable, lead to apparatus	64	0.6	24	0.2	88	0.9
wireless	36	0.3	-	-	36	0.3
other apparatus	204	2.0	88	0.9	292	2.8
Explosives, fireworks	28	0.3	24	0.2	52	0.5
Fire in grate igniting bedding, clothing, linen	72	0.7	-	-	72	0.7
Fire in grate, igniting furniture, furnishings	148	1.4	-	-	148	1.4
structural						
timber under						
hearth	256	2.5	-	-	256	2.5
other						
materials	300	2.9	4	-	304	2.9
Fish frying range (all fuels)	76	0.7	-	-	76	0.7
Flue	44	0.4	24	0.2	68	0.7
Furnace (coal or coke)	8	0.1	-	-	8	0.1
Gas (town) burner, jet, ring	36	0.3	4	-	40	0.4
cooker	244	2.4	-	-	244	2.4
fire, heater, radiator	28	0.3	-	-	28	0.3
other apparatus	68	0.7	16	0.2	84	0.8

SECTION III

Table 4 (Contd.)

SUPPOSED CAUSE OF FIRES

Reports from Scotland, 1958

(Frequencies obtained by multiplying results of analysis of a one-in-four sample of reports by four)

Supposed cause of fire	Fires in buildings		Fires other than those in buildings		Total	
	No.	Per cent	No.	Per cent	No.	Per cent
Incubator brooder (all fuels)	36	0.3	-	-	36	0.3
Intentional burning of grassland, gorse etc.	8	0.1	60	0.6	68	0.7
Lightning	8	0.1	12	0.1	20	0.2
Lime	4	-	4	-	8	0.1
Locomotives, sparks from	48	0.5	544	5.3	592	5.7
Malicious ignition ⁽¹⁾⁽²⁾	16	0.2	4	-	20	0.2
Matches	80	0.8	36	0.3	116	1.1
Matches, children with ⁽⁵⁾	524	5.1	1 372	13.3	1 896	18.3
Mechanical heat or sparks	56	0.5	60	0.6	116	1.1
Metal, hot	8	0.1	4	-	12	0.1
Naked light ⁽¹⁾⁽³⁾	228	2.2	156	1.5	384	3.7
Oil, blowlamp	72	0.7	8	0.1	80	0.8
engine (including petrol)	8	0.1	164	1.6	172	1.7
lamp	8	0.1	4	-	12	0.1
stove	148	1.4	8	0.1	156	1.5
tractor	20	0.2	24	0.2	44	0.4
other apparatus	32	0.3	8	0.1	40	0.4
Oxyacetylene cutting and welding apparatus	56	0.5	68	0.7	124	1.2
Rubbish burning	92	0.9	144	1.4	236	2.3
Slow combustion stove igniting structural woodwork	44	0.4	-	-	44	0.4
other material	92	0.9	36	0.3	128	1.2
Smoking materials	560	5.4	280	2.7	840	8.1
Spontaneous combustion in rubbish	-	-	-	-	-	-
Spontaneous combustion in other materials	52	0.5	4	-	56	0.5
Static electricity	-	-	-	-	-	-
Steam roller, engine, traction engine	-	-	-	-	-	-
Sun's rays	-	-	4	-	4	-
Taper, lighted paper or sticks	40	0.4	-	-	40	0.4
Taper, lighted paper or sticks, children with ⁽⁵⁾	188	1.8	80	0.8	268	2.6
Miscellaneous	104	1.0	44	0.4	148	1.4
Unknown source of ignition	600	5.8	392	3.8	992	9.6
Total fires attended	6 368	61.5	3 984	38.5	10 352	100.0

- Notes. (1) Causes specified for the first time in the Annual Statistical Tables for 1954.
- (2) Malicious ignition is a general heading for suspected or proven arson or incendiarism.
- (3) No further information given in original reports.
- (4) Not comparable with the years prior to 1954.
- (5) A change in definition has increased the number of incidents in these categories in 1957 and succeeding years.

SECTION III
Table 5A

SUPPOSED CAUSE OF FIRES IN BUILDINGS IN RELATION TO HAZARD IN WHICH FIRE STARTED
Reports from Scotland, 1958

(Frequencies obtained by multiplying results of analysis of a one-in-four sample of reports by four)

Row No.	Supposed cause of fire	Hazard in which fire started																										Total Row No.		
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26		27	
1	Ashes, soot	-	-	-	-	4	-	-	-	-	4	-	-	-	8	4	4	4	-	-	12	-	-	-	-	-	12	8	8	268
2	Candle	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	52	
3	Chimney on fire, not confined to chimney	-	-	-	-	-	-	-	-	4	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	596	
4	Chimney, sparks from (outside building)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	28	
5	Cooker, cooking range, oven, other than electric, coal gas or oil (1)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	20	
6	Electric cooker	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	144	
7	Fire, heater, radiator	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	116	
8	Iron	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	24	
9	Motor	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	44	
10	Refrigerator	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	52	

11	television	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	8	28	-	-	-	40	11
12	wire and cable other than lead to apparatus	12	-	-	-	8	8	-	-	-	-	-	-	-	4	28	-	-	-	-	-	4	96	56	8	4	12	240	12
13	wire and cable lead to apparatus	4	-	-	-	-	-	-	4	-	-	-	-	-	8	-	-	-	-	-	4	36	8	-	-	-	64	13	
14	wireless	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8	24	4	-	-	-	36	14
15	other apparatus	4	-	-	-	12	8	4	8	-	-	-	4	-	16	16	-	4	-	-	8	4	48	60	4	4	-	204	15
16	Explosives, fireworks	-	-	-	4	-	-	-	-	-	-	4	-	-	-	4	-	-	-	-	-	-	-	8	-	4	4	28	16
17	Fire in grate, igniting bedding, clothing, linen	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	28	38	-	-	-	72	17	
18	furniture and furnishings	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	64	76	4	-	-	148	18
19	structural timber under hearth	-	-	-	-	-	-	4	-	-	-	4	-	-	-	4	-	4	-	-	-	4	44	176	12	4	-	256	19
20	other materials	-	-	-	-	-	-	-	-	-	-	4	-	-	16	12	-	4	-	-	-	-	104	144	16	-	-	300	20
21	Fish frying range (all fuels)	-	-	-	-	-	4	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	68	-	-	76	21
22	Flue	-	-	-	4	-	-	-	4	-	12	-	-	-	-	-	-	-	-	-	-	-	16	8	-	-	-	44	22
23	Furnace (coal or coke)	-	-	-	-	4	-	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8	23
24	Gas (town) burner, jet, ring cooker	-	-	4	-	-	-	-	-	4	-	-	-	-	16	-	-	-	-	-	-	-	-	8	-	-	4	36	24
25		-	-	-	-	-	-	-	-	4	-	-	4	-	20	-	-	-	-	12	-	64	136	4	-	-	244	25	
26	fire, heater, radiator	-	-	-	-	-	-	8	-	-	-	4	-	-	-	4	-	-	-	-	-	-	4	8	-	-	-	28	26
27	other apparatus	-	-	-	-	-	-	-	8	-	-	-	-	-	16	-	4	-	-	4	-	8	20	4	4	-	68	27	
28	Incubator, brooder (all fuels)	28	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8	-	36	28
29	Intentional burning of grassland, gorse, etc.	4	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	8	29
30	Lightning	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	4	-	-	-	8	30
31	Lime	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	4	31	
32	Locomotives, sparks from	4	-	-	-	-	-	-	-	-	-	-	-	20	-	4	-	-	-	-	-	-	4	4	-	4	8	48	32
33	Malicious ignition (1) (2)	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	8	-	-	-	4	16	33
34	Matches	-	-	-	-	-	-	-	-	-	-	-	-	4	4	-	-	-	-	8	-	8	48	-	4	4	80	34	
35	Matches, children with (5)	16	4	8	-	4	-	-	-	4	24	-	4	4	16	4	-	4	-	16	8	16	64	-	32	296	524	35	
	Column No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	

SECTION III
Table 5A (contd.)

SUPPOSED CAUSE OF FIRES IN BUILDINGS IN RELATION TO HAZARD IN WHICH FIRE STARTED
Reports from Scotland, 1958

(Frequencies obtained by multiplying results of analysis of a one-in-four sample of reports by four)

Row No.	Supposed cause of fire	Hazard in which fire started																										Row No.		
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26		27	
36	Mechanical heat or sparks	-	-	4	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	56	36
37	Metal, hot	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8	37
38	Naked light (1) (3)	4	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	228	38
39	Oil, blow lamp	-	-	-	-	-	-	-	-	-	-	8	-	-	-	-	-	-	-	-	-	-	8	-	-	-	-	-	72	39
40	engine (including petrol)	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8	40
41	lamp	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8	41
42	stove	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	32	-	-	-	-	148	42
43	tractor	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	20	43
44	other apparatus	12	-	-	4	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	32	44
45	Oxyacetylene cutting and welding apparatus	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	56	45
																														Total

(73465)

46	Rubbish burning	8	-	-	-	-	4	4	-	-	12	-	-	4	4	-	-	-	-	12	-	16	-	-	20	8	92	46	
47	Slow combustion stove igniting structural woodwork	4	-	-	-	4	-	-	-	-	12	-	-	4	-	-	-	-	-	8	4	4	-	-	4	-	44	47	
48	other materials	16	-	-	-	4	4	-	-	4	-	-	4	12	4	4	4	-	-	8	4	-	-	8	4	8	92	48	
49	Smoking materials	20	-	-	-	16	4	4	16	4	4	20	-	-	24	48	8	16	-	-	36	20	24	208	64	16	8	560	49
50	Spontaneous combustion in other materials	8	-	-	-	-	-	-	4	-	-	4	-	-	-	-	-	4	-	-	-	4	8	12	8	-	-	52	50
51	Taper, lighted paper or sticks	-	-	-	-	-	-	-	-	-	-	4	-	4	8	-	-	-	-	-	-	8	16	-	-	-	40	51	
52	Taper, lighted paper or sticks, children with(5)	4	-	-	-	-	-	-	-	-	4	-	-	4	12	12	-	-	-	8	-	8	40	-	20	76	188	52	
53	Miscellaneous and undefined(4)	-	4	-	4	4	-	-	24	8	-	4	4	-	12	-	-	-	-	8	-	16	8	4	-	4	104	53	
54	Unknown source of ignition	60	-	-	-	24	4	-	4	12	-	44	-	4	48	40	16	16	-	-	36	20	72	88	28	16	68	600	54
55	Total fires in buildings	252	12	16	16	140	60	36	96	44	28	208	16	24	216	436	56	80	16	-	216	88	116	1 980	280	348	588	6 368	55
	Column No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	

For explanation of notes see page 25

55

SECTION III

Table 5B

SUPPOSED CAUSE OF FIRES OTHER THAN THOSE IN BUILDINGS IN RELATION TO HAZARD IN WHICH FIRE STARTED

Reports from Scotland, 1958

(Frequencies obtained by multiplying results of analysis of a one-in-four sample of reports by four)

Column No.		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22		
Row No.	Supposed cause of fire	Hazard in which fire started																						Row No.	
		Crops	Agricultural machinery	Agricultural waste	Agricultural, other	Gardens and allotments	Railway embankments	Grassland, heathland	Woods, forests, plantations	Single trees	Felled timber	Transport and communications					Outdoor storage						Total		
												Air	Rail	Road-oil, petrol or gas driven vehicles	Road - other vehicles	Water	Chemicals, explosives, ammunition, oils, grease	Coal and coke	Refuse	Timber	Other materials	Miscellaneous outdoor structures			
1	Aircraft crashed	|	|	|	|	|	|	|	|	|	|	|	|	|	|	|	|	|	|	|	|	|	|	4	1
2	Ashes, soot	4	|	|	|	|	|	|	|	|	|	4	|	20	|	|	|	|	32	|	|	|	|	104	23
3	Brazier	|	|	4	|	|	|	|	|	|	|	|	|	|	|	|	|	|	|	|	|	|	|	12	3
4	Camp fire, fire in open air(1)	|	|	|	|	|	|	|	|	|	|	|	|	|	|	|	|	|	|	|	|	|	|	8	4
5	Chimney, sparks from (outside building)	|	|	|	|	|	|	4	|	|	|	|	|	|	|	|	|	|	|	|	|	|	|	4	5
6	Cooker, cooking range, oven, other than electric, coal gas or oil (1)	|	|	|	|	|	|	|	|	|	|	|	|	|	|	|	|	|	|	|	|	|	|	4	6
7	Electric motor	|	|	|	|	|	|	|	|	|	|	|	|	|	4	|	|	|	|	|	|	|	|	4	7
8	wire and cable other than lead to apparatus	|	|	8	|	|	|	|	|	|	|	|	|	|	|	8	|	|	|	|	|	|	|	16	8
9	wire and cable lead to apparatus	|	|	|	|	|	|	|	|	|	|	|	|	20	|	|	|	|	|	|	|	|	|	4	24
10	other apparatus	|	|	|	|	|	|	|	|	|	|	|	|	20	32	4	|	|	|	|	|	|	24	88	10
11	Explosives, fireworks	4	|	|	|	|	|	|	|	|	|	|	|	|	|	|	|	|	|	|	|	|	|	4	24
12	Fire in grate, igniting other materials	|	|	|	|	|	|	|	|	|	|	|	|	|	|	|	|	|	|	|	|	|	|	4	4
13	Flue	|	|	|	|	|	|	|	|	|	|	|	|	|	|	|	|	|	|	|	|	|	|	20	24
14	Gas (town) burner, jet, ring	|	|	|	|	|	|	|	|	|	|	|	|	|	|	|	|	|	|	|	|	|	|	4	4
15	other apparatus	|	|	|	|	|	|	|	|	|	|	|	|	|	|	|	|	|	|	|	|	|	16	16	15

(73465)

57

16	Intentional burning of grassland, gorse, etc.	-	-	-	-	4	48	4	-	-	-	-	-	-	-	-	-	-	4	-	-	60	16	
17	Lightning	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	12	17	
18	Lime	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	-	4	18	
19	Locomotives, sparks from	-	-	4	-	4	256	100	20	-	-	-	12	-	-	-	-	-	16	-	132	544	19	
20	Malicious ignition (1) (2)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	4	20	
21	Matches	-	-	-	-	-	24	-	4	-	-	-	4	-	-	-	-	-	-	-	4	36	21	
22	Matches, children with (5)	16	-	-	8	4	36	960	12	28	4	-	4	12	-	4	4	176	16	24	64	1 372	22	
23	Mechanical heat or sparks	-	-	-	-	-	-	-	-	-	-	-	-	52	-	8	-	-	-	-	-	60	23	
24	Metal hot	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	4	24	
25	Naked light (1) (3)	4	-	-	-	-	4	92	-	4	4	-	8	4	-	4	-	12	-	8	12	156	25	
26	Oil blow lamp	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	4	8	26	
27	engine (including petrol)	-	-	-	-	-	-	-	-	-	-	-	-	160	-	-	-	-	-	-	4	164	27	
28	lamp	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	4	28	
29	stove	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	8	29	
30	tractor	4	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	24	30	
31	other apparatus	-	4	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	8	31	
32	Oxyacetylene cutting and welding apparatus	4	-	-	-	-	-	-	-	-	-	-	4	-	32	-	-	-	4	-	24	68	32	
33	Rubbish burning	12	-	-	4	-	44	8	-	-	-	4	8	-	-	-	40	16	-	8	144	33		
34	Slow combustion stove igniting other materials	-	-	-	-	-	-	-	-	-	-	-	4	-	12	4	-	-	-	-	16	36	34	
35	Smoking materials	32	-	-	8	-	4	68	8	4	-	8	48	-	16	4	-	4	12	12	52	280	35	
36	Spontaneous combustion in other materials	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	36	
37	Sun's rays	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	37	
38	Taper, lighted paper or sticks, children with (5)	-	-	-	-	4	28	4	4	-	-	-	4	-	-	-	-	8	12	-	16	80	38	
39	Miscellaneous and undefined (4)	8	-	-	-	-	-	-	-	-	-	-	8	-	12	-	-	-	8	-	8	44	39	
40	Unknown source of ignition	76	-	-	4	-	12	96	24	12	-	4	32	-	-	8	-	52	8	24	40	392	40	
41	Total fires other than those in buildings	180	40	8	24	8	320	1 488	80	56	8	4	52	504	48	96	32	4	324	112	88	508	3 984	41
	Column No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	

For explanation of notes see page 25.

SECTION III

Table 6

MATERIAL FIRST IGNITED IN FIRES

Reports from Scotland, 1958

(Frequencies obtained by multiplying results of analysis of one-in-four sample of reports by four)

Material first ignited	Fires in buildings		Fires other than those in buildings		Total	
	No.	Per cent	No.	Per cent	No.	Per cent
<u>Agriculture and Forestry</u>						
Crops, ricks, stacks						
Barley	-	-	4	-	4	-
Hay	16	0.2	32	0.3	48	0.5
Straw	20	0.2	28	0.3	48	0.5
Stubble	-	-	-	-	-	-
Other	-	-	16	0.2	16	0.2
Loose straw or hay	76	0.7	56	0.5	132	1.3
Grass, heather, bracken	32	0.3	1 808	17.5	1 840	17.8
Trees, hedges, undergrowth brushwood, bushes, (including gorse), twigs, touchwood	-	-	152	1.5	152	1.5
Other agricultural materials	12	0.1	12	0.1	24	0.2
Total	156	1.5	2 108	20.4	2 264	21.9
<u>Chemicals - gases</u>						
Acetylene	24	0.2	12	0.1	36	0.3
Town gas	220	2.1	32	0.3	252	2.4
Other gases	24	0.2	8	0.1	32	0.3
Total	268	2.6	52	0.5	320	3.1
<u>Chemicals - oils</u>						
Animal and vegetable oils	4	-	-	-	4	-
Mineral oil						
Paraffin	184	1.8	20	0.2	204	2.0
Petrol in vehicles	36	0.3	156	1.5	192	1.9
Petrol not in vehicles	48	0.5	12	0.1	60	0.6
Other mineral oils	20	0.2	16	0.2	36	0.3
Oil, waste and undefined	40	0.4	56	0.5	96	0.9
Total	332	3.2	260	2.5	592	5.7
<u>Chemicals - other</u>						
Celluloid (including films)	-	-	-	-	-	-
Paint, enamel, lacquer, varnish, stains and French polish	8	0.1	-	-	8	0.1
Pitch, tar	8	0.1	16	0.2	24	0.2
Rubber, vulcanite, ebonite	16	0.2	48	0.5	64	0.6
Other chemicals	76	0.7	16	0.2	92	0.9
Total	108	1.0	80	0.8	188	1.8
<u>Paper, cardboard, wood (not part of a structure)</u>						
Paper, cardboard	372	3.6	88	0.9	460	4.4
Wood chippings, flour, sawdust, shavings, wool	60	0.6	20	0.2	80	0.8
Wood barrels, boxes, cases, firewood, etc.	64	0.6	4	-	68	0.7
Timber	60	0.6	72	0.7	132	1.3
Total	556	5.4	184	1.8	740	7.1

SECTION III

Table 6 (Contd.)

MATERIAL FIRST IGNITED IN FIRES

Reports from Scotland, 1958

(Frequencies obtained by multiplying results of analysis of one-in-four sample of reports by four)

Material first ignited	Fires in buildings		Fires other than those in buildings		Total	
	No.	Per cent	No.	Per cent	No.	Per cent
<u>Textiles</u>						
Canvas and canvas goods	24	0.2	12	0.1	36	0.3
Clothing on person	16	0.2	-	-	16	0.2
Clothing not on person	168	1.6	4	-	172	1.7
Cotton	12	0.1	4	-	16	0.2
Jute, hessian, sacking	52	0.5	32	0.3	84	0.8
Rags (including oily rags)	24	0.2	24	0.2	48	0.5
Tarpaulin, waterproof sheeting, oilskins	12	0.1	16	0.2	28	0.3
Other textiles	32	0.3	4	-	36	0.3
Total	340	3.3	96	0.9	436	4.2
<u>Furniture, furnishings, household goods</u>						
Bedding	228	2.2	8	0.1	236	2.3
Carpets, rugs	104	1.0	-	-	104	1.0
Curtains	60	0.6	-	-	60	0.6
Furniture	300	2.9	-	-	300	2.9
Linen articles (unspecified), laundry	8	0.1	-	-	8	0.1
Seating in vehicles	4	-	24	0.2	28	0.3
Other furnishings	124	1.2	8	0.1	132	1.3
Total	828	8.0	40	0.4	868	8.4
<u>Building materials, structural woodwork</u>						
Building materials other than wood	136	1.3	-	-	136	1.3
Structural woodwork						
External	120	1.2	-	-	120	1.2
Internal						
Door, window frame	44	0.4	-	-	44	0.4
Floor, stairs	196	1.9	-	-	196	1.9
Partitions, linings to walls	96	0.9	-	-	96	0.9
Roof	200	1.9	-	-	200	1.9
Timber in chimney, flue	80	0.8	-	-	80	0.8
Timber under hearth	264	2.6	-	-	264	2.6
Other fittings	292	2.8	-	-	292	2.8
Not known whether internal or external	40	0.4	-	-	40	0.4
Structural woodwork hazards other than buildings	-	-	240	2.3	240	2.3
Total	1 468	14.2	240	2.3	1 708	16.5
<u>Miscellaneous</u>						
Coal, coke	4	-	4	-	8	0.1
Electrical insulation	312	3.0	176	1.7	488	4.7
Fat (margarine, suet, butter, cooking fat, lard)	276	2.7	4	-	280	2.7
Food other than fat	120	1.2	-	-	120	1.2
Refuse, rubbish, debris	788	7.6	364	3.5	1 152	11.1
Soot	56	0.5	-	-	56	0.5
Other	356	3.4	92	0.9	448	4.3
<u>Unknown</u>	400	3.9	284	2.7	684	6.6
Total fires attended	6 368	61.5	3 984	38.5	10 352	100.0

SECTION III
Table 7B (Contd.)
MATERIAL FIRST IGNITED IN FIRES IN HAZARDOUS OTHER THAN BUILDINGS IN RELATION TO SUPPOSED CAUSE
Reports from Scotland, 1968

(Frequencies obtained by multiplying the results of analysis of a one-in-four sample of reports by four)

Row No.	Supposed cause of fire	Material first ignited																																										Row No.				
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42					
		Material first ignited																																														
		Agriculture and forestry				Chemicals - gases				Chemicals - oils				Chemicals - other				Paper, cardboard, wood, not structural				Textiles				Furniture, furnishings, household goods				Building materials, structural woodwork				Miscellaneous material														
36	Spontaneous combustion in other materials	4																																														
37	Sun's rays	4																																														
38	Paper, lit and paper or sticks children with (5)	4																																														
39	Miscellaneous and undefined (4)	4																																														
40	Unknown source of ignition	4																																														
41	Total fires other than those in buildings	90	58	1 972	12	32	8	7	20 158	12	18	58	18	48	48	18	48	18	38	24	72		4	4	32	24	18																					
	Column No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42					
																																										4						
																																										80						
																																										44						
																																										392						
																																										240						
																																										4 178						
																																										4 364						
																																										92 284						
																																										3 984						
																																										41						

For explanation of notes see page 26

SECTION III

Table 8

METHOD OF EXTINCTION OF FIRES

Reports from Scotland, 1958

(Frequencies obtained by multiplying results of analysis of one-in-four sample of reports by four)

Row No.	Method of extinction	Fires in buildings						Fires other than those in buildings						Total No. of fires		Row No.
		Extinguished by Fire Brigade		Extinguished before arrival of Fire Brigade		Total		Extinguished by Fire Brigade		Extinguished before arrival of Fire Brigade		Total				
		No.	Per cent	No.	Per cent	No.	Per cent	No.	Per cent	No.	Per cent	No.	Per cent	No.	Per cent	
1	Burned out	-	-	48	0.5	48	0.5	-	-	84	0.8	84	0.8	132	1.3	1
2	Removal	368	3.6	148	1.4	516	5.0	52	0.5	4	-	56	0.5	572	5.5	2
3	Automatic sprinkler system	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3
4	Beating	4	-	4	-	8	0.1	1 188	11.5	84	0.8	1 272	12.3	1 280	12.4	4
5	Smothering	32	0.3	60	0.6	92	0.9	-	-	4	-	4	-	96	0.9	5
6	Sand, earth, etc.	4	-	12	0.1	16	0.2	4	-	12	0.1	16	0.2	32	0.3	6
7	Water from buckets	180	1.7	324	3.1	504	4.9	32	0.3	58	0.5	88	0.9	592	5.7	7
8	Water from stirrup or hand pumps	1 088	10.5	4	-	1 092	10.5	28	0.3	-	-	28	0.3	1 120	10.8	8
9	Chemicals and chemical extinguishers	188	1.8	108	1.0	296	2.9	148	1.4	64	0.6	212	2.0	508	4.9	9
10	Two or more methods 4-9	36	0.3	36	0.3	72	0.7	24	0.2	18	0.2	40	0.4	112	1.1	10
11	Water from garden hose, etc.	-	-	28	0.3	28	0.3	-	-	16	0.2	16	0.2	44	0.4	11
12	Hose reel jets (using water in tank only)	2 364	22.8	4	-	2 368	22.9	1 472	14.2	16	0.2	1 488	14.4	3 856	37.2	12
13	Hose reel jets (using more water than that in tank)	340	3.3	-	-	340	3.3	112	1.1	-	-	112	1.1	452	4.4	13
14	Jets from inside hose reel or inside hydrant	4	-	16	0.2	20	0.2	-	-	4	-	4	-	24	0.2	14
15	Hose reel jets and jets from inside hose reel or inside hydrant	-	-	-	-	-	-	-	-	-	-	-	-	-	-	15
16	Jets from pumps and hydrants	820	7.9	8	0.1	828	8.0	516	5.0	20	0.2	536	5.2	1 364	13.2	16
17	Other and undefined methods	84	0.8	56	0.5	140	1.4	12	0.1	16	0.2	28	0.3	168	1.6	17
18	Total fires attended	5 512	53.2	856	8.3	6 368	61.5	3 588	34.7	396	3.8	3 984	38.5	10 352	100.0	18

Notes on methods of extinction

- "Removal" includes occurrences where (a) burning material was removed from the building, (b) gas supply was turned off. If the burning material was tackled with methods 3-11 before removing it from the building, then such occurrences were classified under whichever of these methods applied.
- Methods 11-15 and method 16 include those occurrences in which methods 3-10 and 3-15 respectively may also have been used.
- "Fires extinguished by Fire Brigade" include those fires which were tackled but not extinguished before the arrival of the Fire Brigade.

SECTION III

Table 9

BEHAVIOUR OF SPRINKLER SYSTEMS AT FIRES

Reports from Scotland, 1958

(Frequencies observed in the analysis of a one-in-four sample of reports)

Note: These figures are not on a comparable basis with those in tables 1-8 or tables 10-12

Behaviour of sprinklers	Incidents in which the following number of heads were actuated						Total Number of incidents
	Nil	1-5	6-10	11-20	More than 20	Number not reported	
Installed but did not operate							
(i) because insufficient heat was generated by the fire	7	-	-	-	-	-	7
(ii) because the seat of the fire was out of range of the sprinkler heads	1	-	-	-	-	-	1
TOTAL	8	-	-	-	-	-	8
Controlled but did not extinguish the fire	-	3	1	-	1	-	5
Extinguished the fire	-	-	-	-	-	-	-
Number of calls to fires where sprinkler systems were installed	8	3	1	-	1	-	13

SECTION III

Table 10

PERSONS RESCUED OR ESCAPED BY EMERGENCY MEANS FROM FIRES

Reports from Scotland, 1958

(Frequencies obtained from results of analysis of all reports)

Appliance or method used	Number of persons
Rescue with Fire Brigade assistance from	
Buildings	
Escape (hand operated)	1
Ladder, extension	3
first floor	1
turntable (mechanical)	3
other or undefined	3
Without apparatus	20
Total	31
Rescue without Fire Brigade assistance from	
Buildings	
Carried or assisted out	56
Ladder	8
Lowered from windows, roof, etc.	13
Road vehicles	1
Ships	1
Caravans	1
Total	80
Escaped by emergency means from	
Aircraft	
Through exits or from debris	7
Buildings	
Jumping from upstairs window, roof	14
Ladder	3
Through ground floor windows	3
Other and undefined methods	1
Road vehicles	3
Caravans	1
Total	32
Total persons rescued or escaped	143

SECTION III

Table 11

NATURE OF INJURIES OF CASUALTIES IN FIRES

Reports from Scotland, 1958

(Frequencies obtained from results of analysis of all reports)

Nature of injury	Fire Brigade	Other Casualties	Total
Fatal casualties			
Burns and scalds	-	35	35
Overcome by gas or smoke	-	13	13
Other and undefined injuries	-	3	3
Total	-	51	51
Non-fatal casualties**			
Burns and scalds	5	98	103
Bruises, cuts, abrasions	8	12	20
Dislocations, sprains, fractures	3	5	8
Overcome by gas or smoke	3	28	31
More than one of above injuries	2	6	8
*Shock	1	14	15
Other and undefined injuries	4	5	9
Total	26	168	194
Total casualties	26	219	245

** Change in reporting procedure excludes casualties requiring first-aid treatment only in 1954 and subsequent years.

* Casualties who suffered shock in addition to another injury have been classified according to the nature of the other injury.

SECTION III

Table 12

FIRES CLASSIFIED - ACCORDING TO THE MONTH IN WHICH THEY OCCURRED

Reports from Scotland, 1958

(Frequencies obtained by multiplying the results of analysis of a one-in-four sample of reports by four)

Month of occurrence	Fires in buildings		Fires other than those in buildings		Total	
	No.	Per cent	No.	Per cent	No.	Per cent
January	652	6.3	128	1.2	780	7.5
February	556	5.4	212	2.0	768	7.4
March	716	6.9	1 000	9.7	1 716	16.6
April	600	5.8	1 028	9.9	1 628	15.7
May	556	5.4	420	4.1	976	9.4
June	408	3.9	152	1.5	560	5.4
July	372	3.6	200	1.9	572	5.5
August	360	3.5	148	1.4	508	4.9
September	440	4.3	144	1.4	584	5.6
October	540	5.2	204	2.0	744	7.2
November	588	5.7	188	1.8	776	7.5
December	580	5.6	160	1.5	740	7.1
Total fires	6 368	61.5	3 984	38.5	10 352	100.0

SECTION IV

STATISTICAL TABLES FOR FIRE BRIGADES IN NORTHERN IRELAND, 1958

Table 1

METHOD OF CALLING FIRE BRIGADES TO FIRES

Reports from Northern Ireland, 1958

(Frequencies obtained by multiplying results of analysis of a one-in-four sample of reports by four)

Method of calling	Fire Brigade				Total	
	North	South	West	Belfast	No.	Per cent
By Special Fire Service methods						
Automatic fire alarm	-	-	-	-	-	-
Fire and police pillar box	-	-	-	-	-	-
Police telephone	-	-	4	24	28	2.4
Private fire telephone	-	-	-	-	-	-
Street fire alarm	-	-	-	24	24	2.0
Total	-	-	4	48	52	4.4
Exchange Telephone	156	396	200	276	1 028	86.5
Running call	12	-	-	12	24	2.0
Late call	-	-	-	8	8	0.7
Other and undefined methods	16	24	20	16	76	6.4
Total fires attended	184	420	224	360	1 188	100.0

N.B. A change in reporting procedure instituted in 1958 has resulted in an increase in the number of incidents where the method of call was undefined.

SECTION IV

Table 2

FIRES CLASSIFIED ACCORDING TO HAZARD IN WHICH FIRE STARTED

Reports from Northern Ireland, 1958

(Frequencies obtained by multiplying the results of analysis of a one-in-four sample of reports by four)

Hazard in which fire started	Total	
	No.	Per cent
Fires in buildings classified according to trade or business carried on		
<u>Agriculture</u>		
Farming (not fruit or poultry) and horse and stock rearing	68	5.7
Allotments, market gardening, fruit and poultry farming	8	0.7
Total	76	6.4
<u>Mining quarrying and treatment of non-metalliferous mine and quarry products (excluding gas works)</u>	8	0.7
<u>Manufacture of bricks, pottery, glass, etc.</u>	-	-
<u>Manufacture of chemicals, dyes, explosives, paints, oils</u>		
Chemicals	-	-
Explosives	-	-
Paints, varnish, oil, grease	-	-
Miscellaneous	-	-
Total	-	-
<u>Manufacture of metals, machines, implements, conveyances</u>		
Smelting, converting, refining, rolling of iron, steel	-	-
Extracting, refining, smelting of other metals	-	-
Founding, other secondary processes in metal working	-	-
Engineering (not marine or electrical)	-	-
Electrical installations, cables and apparatus	-	-
Construction and repair of vehicles	-	-
Shipbuilding, and repairing, marine engineering	-	-
Cutlery and small tools	-	-
Other metal industries	-	-
Total	-	-
<u>Manufacture of textiles and textile goods (not dress)</u>		
Cotton	4	0.3
Wool, worsted and shoddy	-	-
Silk, natural and artificial	-	-
Other or mixed fibres	8	0.7
Miscellaneous	4	0.3
Textile dyeing, printing, bleaching, finishing	-	-
Total	16	1.3

SECTION IV

Table 2 (Contd.)

FIRES CLASSIFIED ACCORDING TO HAZARD IN WHICH FIRE STARTED

Reports from Northern Ireland, 1958

(Frequencies obtained by multiplying the results of analysis of a one-in-four sample of reports by four)

Hazard in which fire started	Total.	
	No.	Per cent
Fires in buildings classified according to trade or business carried on (contd.)		
<u>Preparation of skins and leather and manufacture of goods of leather and leather substitute (not clothing or footwear)</u>	-	-
<u>Manufacture of clothing (not knitted) including footwear</u>	8	0.7
<u>Manufacture of food, drink, tobacco</u>		
Food	-	-
Drink	-	-
Tobacco, cigars, cigarettes, snuff	-	-
Total	-	-
<u>Woodworking: manufacture of cane and basket ware, furniture, fittings</u>		
Woodworking and basket ware	4	0.3
Furniture (not metal or basket)	8	0.7
Fittings	-	-
Total	12	1.0
<u>Paper making: manufacture of stationery and stationery requisites, printing and bookbinding</u>	-	-
<u>Building, decorating, contracting: slate and stone cutting and dressing</u>	24	2.0
<u>Rubber and synthetic rubber</u>	-	-
<u>Other manufacturing industries</u>	-	-
<u>Gas, water, electricity, sewage</u>	4	0.3
<u>Transport and communication</u>		
Railway - stations, etc.	-	-
Road - garages, depots, etc.	36	3.0
Water - dock buildings other than warehouses	-	-
Air - aerodromes etc.	-	-
Other communication (post, telephone, wireless)	-	-
Total	36	3.0
<u>Commerce</u>		
Departmental stores	-	-
Retail shops	44	3.7
Wholesale dealers	24	2.0
Dock and other warehouses	-	-
Total	68	5.7

SECTION IV

Table 2 (Contd.)

FIRES CLASSIFIED ACCORDING TO HAZARD IN WHICH FIRE STARTED

Reports from Northern Ireland, 1958

(Frequencies obtained by multiplying the results of analysis of a one-in-four sample of reports by four)

Hazard in which fire started	Total	
	No.	Per cent
Fires in buildings classified according to trade or business carried on (contd.)		
<u>Offices, Government and other</u>		
Government departments	4	0.3
Local authorities	-	-
Other offices	4	0.3
Total	8	0.7
<u>Navy, Army and Air Force establishments</u>	-	-
<u>Fire Service establishments</u>	4	0.3
<u>Professional establishments (other than offices); public institutions</u>		
Educational establishments	12	1.0
Hospitals, homes etc. for care of the sick and infirm	4	0.3
Places of worship	12	1.0
Other public and professional services	-	-
Total	28	2.4
<u>Places of public entertainment</u>		
Cinemas and theatres	4	0.3
Other places of entertainment	4	0.3
Total	8	0.7
<u>Private residential and personal service (including hotels and catering)</u>		
Private residential houses	376	31.7
Private residential flats and maisonettes	36	3.0
Clubs, hotels, restaurants, public houses	32	2.7
Private huts, unoccupied houses, personal service	44	3.7
Total	488	41.1
<u>Miscellaneous</u>	16	1.3
<u>Undefined</u>	4	0.3
Total fires in buildings	808	68.0

SECTION IV

Table 2 (Contd.)

FIRES CLASSIFIED ACCORDING TO HAZARD IN WHICH FIRE STARTED

Reports from Northern Ireland, 1958

(Frequencies obtained by multiplying the results of analysis of a one-in-four sample of reports by four)

Hazard in which fire started	Total	
	No.	Per cent
Fires other than those in buildings		
<u>Agriculture and forestry</u>		
Crops, standing or stoked (including hay fields)	-	-
Crops, ricks and stacks	24	2.0
Agricultural machinery	16	1.3
Agricultural waste	-	-
Other agricultural hazards	4	0.3
Allotments and gardens	-	-
Railway embankments	12	1.0
Grassland, heathland	88	7.4
Woods, forests, plantations	-	-
Single trees	-	-
Felled timber	-	-
Total	144	12.1
<u>Transport and communication</u>		
Aircraft	4	0.3
Railway rolling stock etc.	4	0.3
Road vehicles - electrically driven	-	-
- oil, petrol, or gas driven	100	8.4
Road vehicles - other	-	-
Water vessels - craft on inland waters	-	-
- ships in dock	-	-
- ships at sea	-	-
- marine structures	-	-
Total	108	9.1
<u>Outdoor storage</u>		
Chemicals, explosives, ammunition, oils, grease	4	0.3
Coal and coke	8	0.7
Refuse	36	3.0
Timber	4	0.3
Cotton, metal, packing materials, rubber etc.	4	0.3
Total	56	4.7
<u>Other outdoor structures</u>	72	6.1
Total fires other than those in buildings	380	32.0
Total fires attended	1 188	100.0

SECTION IV

Table 3

FIRES CLASSIFIED ACCORDING TO HAZARD IN WHICH FIRE
STARTED FOR EACH BRIGADE

Reports from Northern Ireland, 1958

(Frequencies obtained by multiplying results of analysis of
a one-in-four sample of reports by four)

Hazard in which fire started	Fire Brigades				Total
	North	South	West	Belfast	
Fires in buildings					
Industrial premises	16	12	-	40	68
Commercial premises and offices	12	24	12	28	76
Transport and public utilities	4	12	8	16	40
Dwellings	48	160	88	116	412
Other buildings	48	80	48	36	212
Total	128	288	156	236	808
Fires not in buildings					
Agriculture, grassland, forestry	20	52	44	28	144
Transport	24	48	12	24	108
Outdoor storage	4	12	12	28	56
Other outdoor hazards	8	20	-	44	72
Total	56	132	68	124	380
Total fires attended	184	420	224	360	1 188

SECTION IV

Table 4

SUPPOSED CAUSE OF FIRES

Reports from Northern Ireland, 1958

(Frequencies obtained by multiplying results of analysis of a one-in-four sample of reports by four)

Each item in the list of supposed causes of fire given in the table represents a group of causes which have a common source of ignition. In some cases the groups have been divided into sub-groups according to the nature of the material first ignited, and in others according to the act with the source of ignition which led to the outbreak of fire. Certain causes were specified for the first time in 1954, the miscellaneous item is therefore not comparable with those for years previous to 1954.

Supposed cause of fire	Fires in buildings		Fires other than those in buildings		Total	
	No.	Per cent	No.	Per cent	No.	Per cent
Aircraft, crashed	-	-	4	0.3	4	0.3
Ashes, soot	4	0.3	8	0.7	12	1.0
Brazier	4	0.3	-	-	4	0.3
Camp fire, fire in open air ⁽¹⁾	-	-	-	-	-	-
Candle	12	1.0	-	-	12	1.0
Chimney on fire, not confined to chimney	64	5.4	-	-	64	5.4
Chimney, sparks from (outside building)	8	0.7	-	-	8	0.7
Cooker, cooking range oven other than electric, coal gas, oil ⁽¹⁾	4	0.3	-	-	4	0.3
Electric cooker	4	0.3	-	-	4	0.3
fire, heater, radiator	16	1.3	-	-	16	1.3
iron	4	0.3	-	-	4	0.3
motor	-	-	-	-	-	-
refrigerator	4	0.3	-	-	4	0.3
television	-	-	-	-	-	-
wire and cable, other than lead to apparatus	24	2.0	84	7.1	108	9.1
wire and cable, lead to apparatus	8	0.7	-	-	8	0.7
wireless	-	-	-	-	-	-
other apparatus	4	0.3	12	1.0	16	1.3
Explosives, fireworks	-	-	4	0.3	4	0.3
Fire in grate, igniting bedding, clothing, linen	8	0.7	-	-	8	0.7
furniture, furnishing	16	1.3	-	-	16	1.3
structural timber under hearth	32	2.7	-	-	32	2.7
other materials	112	9.4	-	-	112	9.4
Fish frying range (all fuels)	8	0.7	-	-	8	0.7
Flue	-	-	-	-	-	-
Furnace (coal or coke)	-	-	-	-	-	-
Gas (town) burner, jet, ring cooker	12	1.0	-	-	12	1.0
fire, heater, radiator	4	0.3	-	-	4	0.3
other apparatus	-	-	-	-	-	-
Incubator, brooder (all fuels)	24	2.0	-	-	24	2.0

SECTION IV

Table 4 (Contd.)

SUPPOSED CAUSE OF FIRES

Reports from Northern Ireland, 1958

(Frequencies obtained by multiplying results of analysis of a one-in-four sample of reports by four)

Supposed cause of fire	Fires in buildings		Fires other than those in buildings		Total	
	No.	Per cent	No.	Per cent	No.	Per cent
Intentional burning of grassland, gorse, etc.	-	-	-	-	-	-
Lightning	-	-	-	-	-	-
Lime	-	-	-	-	-	-
Locomotives, sparks from	-	-	8	0.7	8	0.7
Malicious ignition (1) (2)	4	0.3	-	-	4	0.3
Matches	8	0.7	4	0.3	12	1.0
Matches, children with (5)	28	2.4	24	2.0	52	4.4
Mechanical heat or sparks	-	-	-	-	-	-
Metal, hot	-	-	8	0.7	8	0.7
Naked light (1) (3)	8	0.7	4	0.3	12	1.0
Oil blowlamp	12	1.0	24	2.0	36	3.0
engine (including petrol)	4	0.3	-	-	4	0.3
lamp	8	0.7	-	-	8	0.7
stove	32	2.7	-	-	32	2.7
tractor	-	-	-	-	-	-
other apparatus	4	0.3	4	0.3	8	0.7
Oxyacetylene cutting and welding apparatus	4	0.3	4	0.3	8	0.7
Rubbish burning	20	1.7	12	1.0	32	2.7
Slow combustion stove igniting structural woodwork	8	0.7	-	-	8	0.7
other materials	16	1.3	12	1.0	28	2.4
Smoking materials	44	3.7	20	1.7	64	5.4
Spontaneous combustion in rubbish	-	-	-	-	-	-
Spontaneous combustion in other materials	4	0.3	-	-	4	0.3
Static electricity	-	-	-	-	-	-
Steam roller, engine, traction engine	-	-	-	-	-	-
Sun's rays	-	-	-	-	-	-
Taper, lighted paper or sticks	-	-	-	-	-	-
Taper, lighted paper or sticks, children with (5)	-	-	-	-	-	-
Miscellaneous (4)	12	1.0	4	0.3	16	1.3
Unknown source of ignition	216	18.2	140	11.8	356	30.0
Total fires attended	808	68.0	380	32.0	1 188	100.0

- Note. (1) Causes specified for the first time in the Annual Statistical Tables for 1954.
- (2) Malicious ignition is a general term for suspected or proven arson or incendiarism.
- (3) No further information given in original reports.
- (4) Not comparable with the years prior to 1954.
- (5) A change in definition has increased the number of incidents in these categories in 1957 and succeeding years.

11	wire and cable other than lead to apparatus	-	4	-	-	-	-	7	-	-	-	-	-	-	4	4	-	-	-	4	-	8	-	-	-	-	24	11	
12	wire and cable lead to apparatus	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	8	12	
13	other apparatus	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	4	13	
14	Fire in grate, igniting bedding, clothing, linen	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8	-	-	-	-	8	14	
15	furniture and furnishings	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12	4	-	-	-	16	15	
16	structural timber under hearth	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	16	12	4	-	-	32	16
17	other materials	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	108	4	-	-	-	112	17	
18	Fish frying range (all fuels)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8	-	-	8	18	
19	Gas (town) cooker	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	4	4	-	-	-	12	19	
20	fire, heater, radiator	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	4	20	
21	Incubator, brooder (all fuels)	24	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	24	21	
22	Malicious ignition (1) (2)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	4	22	
23	Matches	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	8	23	
24	Matches, children with (5)	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	28	24	
25	Naked light (1) (3)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	4	8	25	
26	Oil, blow lamp	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	4	-	-	-	4	-	-	12	26	
27	engine (includ- ing petrol)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	4	27	
28	lamp	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	8	28	
29	stove	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	4	-	20	-	-	4	-	32	29	
30	Other apparatus	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	4	30	
31	Oxyacetylene cutting and welding apparatus	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	4	31	
32	Rubbish burning	-	-	-	-	-	4	-	-	-	-	-	-	8	-	-	-	-	-	-	-	-	-	4	4	-	20	32	
33	Slow combustion stove igniting structural woodwork	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	8	33	
34	other materials	-	-	-	-	4	-	-	-	4	-	-	-	4	-	4	-	-	-	-	-	-	-	-	-	-	16	34	
35	Smoking materials	4	-	-	-	-	-	4	-	-	-	-	4	12	4	-	-	-	-	-	-	-	-	-	-	-	44	35	
36	Spontaneous combustion in other materials	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	36	
37	Miscellaneous and undefined (4)	-	4	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	12	37	
38	Unknown source of ignition	28	-	-	-	8	-	4	-	12	-	4	16	8	12	4	-	4	8	-	56	8	4	28	12	216	38		
39	Total fires in buildings	73	8	-	-	16	8	12	-	-	-	4	36	44	24	8	-	4	28	8	376	36	32	44	20	808	39		
	Column No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	

SECTION IV

Table 5B

SUPPOSED CAUSE OF FIRES OTHER THAN THOSE IN BUILDINGS IN RELATION TO HAZARD IN WHICH FIRE STARTED

Reports from Northern Ireland, 1958

(Frequencies obtained by multiplying results of analysis of a one-in-four sample of reports by four)

Row No.	Supposed cause of fire	Column No.																						Row No.		
		Hazard in which fire started																								
		Crops	Agricultural machinery	Agricultural waste	Agricultural, other	Gardens and allotments	Railway embankments	Grassland, heathland	Woods, forests, plantations	Single trees	Felled timber	Transport and communications					Outdoor storage					Miscellaneous outdoor structures	Total			
												Air	Rail	Road-oil, petrol or gas driven vehicles	Road - other vehicles	Water	Chemicals, explosives, ammunition, oils, grease	Coal and coke	Refuse	Timber	Other materials					
1	Aircraft crashed	.	.	.	.	.	.	.	.	.	.	4	.	.	.	.	.	.	.	.	.	.	.	.	4	1
2	Ashes, soot	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	8	2
3	Electric wire and cable other than lead to apparatus	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	84	3
4	other apparatus	.	12	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	4	12	4
5	Explosives, fireworks	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	4	5
6	Locomotives, sparks from	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	8	6
7	Matches	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	4	7
8	Matches, children with	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	24	8
9	Naked light (1) (3)	4	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	8	9
10	Oil blow lamp	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	4	10
11	engine (including petrol)	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	24	11
12	other apparatus	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	4	12
13	Oxyacetylene cutting and welding apparatus	.	.	.	.	.	.	.	.	.	.	.	4	.	.	.	.	.	.	.	.	.	.	.	4	13
14	Rubbish burning	.	.	.	4	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	12	14
15	Slow combustion stove igniting other materials	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	12	15
16	Smoking materials	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	20	16
17	Miscellaneous and undefined (4)	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	4	17
18	Unknown source of ignition	20	4	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	140	18
19	Total fires other than those in buildings	24	16	.	4	.	12	88	.	.	.	4	4	100	.	.	4	8	36	4	4	72	380	19		
	Column No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22			

For explanation of notes see page 25

SECTION IV

Table 6

MATERIAL FIRST IGNITED IN FIRES

Reports from Northern Ireland, 1958

(Frequencies obtained by multiplying results of analysis of a one-in-four sample of reports by four)

Material first ignited	Fires in buildings		Fires other than those in buildings		Total	
	No.	Per cent	No.	Per cent	No.	Per cent
<u>Agriculture and Forestry</u>						
Crops, ricks, stacks						
Barley	-	-	-	-	-	-
Hay	16	1.3	4	0.3	20	1.7
Straw	4	0.3	-	-	4	0.3
Stubble	-	-	-	-	-	-
Other	-	-	-	-	-	-
Loose straw or hay	12	1.0	-	-	12	1.0
Grass, heather, bracken	-	-	24	2.0	24	2.0
Trees, hedges, undergrowth, brushwood, bushes (including gorse), twigs, touchwood	-	-	12	1.0	12	1.0
Other agricultural materials	-	-	4	0.3	4	0.3
Total	32	2.7	44	3.7	76	6.4
<u>Chemicals - gases</u>						
Acetylene	-	-	-	-	-	-
Town gas	12	1.0	4	0.3	16	1.3
Other gases	8	0.7	-	-	8	0.7
Total	20	1.7	4	0.3	24	2.0
<u>Chemicals - oils</u>						
Animal and vegetable oils	-	-	-	-	-	-
Mineral oil						
Paraffin	36	3.0	4	0.3	40	3.4
Petrol in vehicles	8	0.7	32	2.7	40	3.4
Petrol not in vehicles	12	1.0	-	-	12	1.0
Other mineral oils	8	0.7	-	-	8	0.7
Oil waste and undefined	4	0.3	-	-	4	0.3
Total	68	5.7	36	3.0	104	8.8
<u>Chemicals - other</u>						
Celluloid (including films)	-	-	-	-	-	-
Paint, enamel, lacquer, varnish, stains and French polish	-	-	-	-	-	-
Pitch, tar	-	-	16	1.3	16	1.3
Rubber, vulcanite, ebonite	-	-	-	-	-	-
Other chemicals	12	1.0	4	0.3	16	1.3
Total	12	1.0	20	1.7	32	2.7
<u>Paper, cardboard, wood (not part of a structure)</u>						
Paper, cardboard	32	2.7	16	1.3	48	4.0
Wood chippings; flour, sawdust shavings, wool	12	1.0	-	-	12	1.0
Wood barrels, boxes, cases, firewood etc.	8	0.7	-	-	8	0.7
Timber	8	0.7	4	0.3	12	1.0
Total	60	5.1	20	1.7	80	6.7

SECTION IV

Table 6 (Contd.)

MATERIAL FIRST IGNITED IN FIRES

Reports from Northern Ireland, 1958

(Frequencies obtained by multiplying results of analysis of a one-in-four sample of reports by four)

Material first ignited	Fires in buildings		Fires other than those in buildings		Total	
	No.	Per cent	No.	Per cent	No.	Per cent
<u>Textiles</u>						
Canvas and canvas goods	-	-	-	-	-	-
Clothing on person	8	0.7	-	-	8	0.7
Clothing not on person	12	1.0	-	-	12	1.0
Cotton	-	-	-	-	-	-
Jute, hessian, sacking	-	-	-	-	-	-
Rags, (including oily rags)	4	0.3	4	0.3	8	0.7
Tarpaulin, waterproof sheeting, oilskins	-	-	-	-	-	-
Other textiles	4	0.3	-	-	4	0.3
Total	28	2.4	4	0.3	32	2.7
<u>Furniture, furnishings, household goods</u>						
Bedding	24	2.0	-	-	24	2.0
Carpets, rugs	-	-	-	-	-	-
Curtains	16	1.3	-	-	16	1.3
Furniture	40	3.4	-	-	40	3.4
Linen articles (unspecified), laundry	-	-	-	-	-	-
Seating in vehicles	-	-	-	-	-	-
Other furnishings	-	-	-	-	-	-
Total	80	6.7	-	-	80	6.7
<u>Building materials, structural</u>						
<u>woodwork</u>						
Building materials other than wood	48	4.0	-	-	48	4.0
Structural woodwork						
External	12	1.0	-	-	12	1.0
Internal						
Door, window frame	12	1.0	-	-	12	1.0
Floor, stairs	24	2.0	-	-	24	2.0
Partitions, linings to walls	20	1.7	-	-	20	1.7
Roof	32	2.7	-	-	32	2.7
Timber in chimney, flue	4	0.3	-	-	4	0.3
Timber under hearth	32	2.7	-	-	32	2.7
Other fittings	24	2.0	-	-	24	2.0
Not known whether internal or external	-	-	-	-	-	-
Structural woodwork hazards other than buildings	-	-	8	0.7	8	0.7
Total	208	17.5	8	0.7	216	18.2
<u>Miscellaneous</u>						
Coal, coke	-	-	4	0.3	4	0.3
Electrical insulation	20	1.7	88	7.4	108	19.1
Fat (margarine, suet, butter, cooking fat and lard)	24	2.0	-	-	24	2.0
Food other than fat	4	0.3	-	-	4	0.3
Refuse, rubbish, debris	8	0.7	16	1.3	24	2.0
Soot	24	2.0	-	-	24	2.0
Other	20	1.7	4	0.3	24	2.0
<u>Unknown</u>	200	16.8	132	11.1	332	27.9
Total fires attended	808	68.0	380	32.0	1 188	100.0

SECTION IV

Table 7A

MATERIAL FIRST IGNITED IN FIRES IN BUILDINGS IN RELATION TO THE SUPPOSED CAUSE

Reports from Northern Ireland, 1968

(Frequencies obtained by multiplying the results of analysis of a one-in-four sample of reports by four)

Row No.	Supposed cause of fire	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	Row No.						
		Material first ignited																																																						
		Agriculture and Forestry		Chemicals - gases		Chemicals - oils				Chemicals - other			Paper, cardboard, wood not structural				Textiles					Furniture, furnishings, household goods				Building materials, structural woodwork						Miscellaneous materials																								
		Crops, ricks and stacks	Loose straw or hay	Other agricultural material	Acetylene	Town gas	Other gases	Animal and vegetable oils	Paraffin	Petrol in vehicles	Petrol not in vehicles	Other mineral oils	Oil, waste and undefined	Paint, enamel, lacquer, varnish, etc.	Pitch, tar	Rubber, vulcanite, ebonite	Other chemicals, including celluloid and celluloid goods	Paper, cardboard	Wooden packing materials	Timber	Clothing, on person	Clothing not on person	Cotton	Jute, hessian, sacking	Rags, including oily rags	Textiles, waterproof sheeting, oilskins	Other textiles including canvas and canvas goods	Soft furnishings	Furniture	Linen articles, (unspecified), laundry	Seating in vehicles	Other furnishings	Building materials other than wood	Structural woodwork, external	Doors, window frames	Floors, stairs	Partitions, lining to walls	Roof	Timber in chimney, flue	Timber under hearth	Other fittings	Coal, coke	Electrical insulation	Food	Refuse, rubbish, debris	Soot	Other materials	Unknown material	Total							
1	Ashes, soot																																																	4	1					
2	Brazier																																																				4	2		
3	Candle																																																				12	3		
4	Chimney on fire not confined to chimney																																																					64	4	
5	Chimney, sparks from (outside building)																																																				8	5		
6	Cooker, cooking range, oven (other than electric, coal gas or oil) (1)																																																				4	6		
7	Electric cooker																																																			4	7			
8	fire, heater, radiator																																																				4	8		
9	iron																																																				4	9		
10	refrigerator																																																				4	10		
11	wire and cable (other than lead to apparatus)								8									4																																			24	11		
12	wire and cable (lead to apparatus)																																																					8	12	
13	other apparatus										4																																											4	13	
14	Fire in grate, igniting bedding, clothing, linen																																																					8	14	
15	furniture and furnishings																																																					16	15	
16	structural timber under hearth																																																				32	16		
17	other materials								4		4							8	4																																	112	17			
18	Fish frying range (all fuels)																																																				8	18		
19	Gas (town) cooker																																																				12	19		
20	fire, heater, radiator											4																																									4	20		
21	Incubator, brooder (all fuels)																																																				24	21		
22	Malicious ignition (1)(2)																																																				4	22		
23	Matches																																																					8	23	
24	Matches, children with (5)																																																					28	24	
25	Naked light (1)(3)																																																				8	25		
26	Oil, blow lamp																																																					12	26	
27	engine (including petrol)											4																																									4	27		
28	lamp																																																				8	28		
29	stove																																																					32	29	
30	other apparatus																																																				4	30		
31	Oxyacetylene cutting and welding apparatus																																																					4	31	
32	Rubbish burning																																																					20	32	
33	Slow combustion stove igniting structural woodwork																																																					8	33	
34	other materials																																																						16	34
35	Smoking materials																																																						44	35
36	Spontaneous combustion in other materials																																																					4	36	
37	Miscellaneous and undefined (4)																																																				12	37		
38	Unknown source of ignition																																																					216	38	
39	Total fires in buildings	20	12			12	8		36	8	12	8	4				12	32	20	8	8	12				4	4	4	40	40				48	12	12	24	20	32	4	32	24		20	28	8	24	20	200	808	39					

For explanation of notes see page 25

SECTION IV

Table 7B

MATERIAL FIRST IGNITED IN FIRES IN HAZARDS OTHER THAN BUILDINGS IN RELATION TO SUPPOSED CAUSE

Reports from Northern Ireland, 1968

(Frequencies obtained by multiplying the results of analysis of a one-in-four sample of reports by four)

Row No.	Supposed cause of fire	Material first ignited																																										Row No.									
		Agriculture and Forestry		Chemicals - gases		Chemicals - oils		Chemicals - other		Paper, cardboard, wood not structural		Textiles				Furniture, furnishings, household goods		Building materials, structural woodwork		Miscellaneous material				Total																													
		Crops, ricks and stacks	Loose straw or hay	Other agricultural materials	Acetylene	Town gas	Other gases	Animal and vegetable oils	Paraffin	Petrol in vehicles	Petrol not in vehicles	Other mineral oils	Oils, waste and undefined	Paint, enamel, lacquer, varnish etc.	Pitch, tar	Rubber, vulcanite, ebonite	Other chemicals, including celluloid and celluloid goods	Paper, cardboard	Wooden packing materials	Timber	Clothing on person	Clothing not on person	Cotton		Jute, hessian, sacking	Rags, including oily rags	Tarpaulins, waterproof sheeting, oilskins	Other textiles including canvas and canvas goods	Soft furnishings	Furniture	Linen articles, (unspecified), laundry	Seating in vehicles	Other furnishings	Building materials other than wood	Structural woodwork other than in buildings	Structural woodwork external	Coal, coke	Electrical insulation	Food	Refuse, rubbish, debris	Soot	Other materials	Unknown material										
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42												
1	Aircraft, crashed	4	4	1					
2	Ashes, soot	8	8	2		
3	Electric wire and cable other than lead to apparatus	84	84	3	
4	other apparatus	12	12	4	
5	Explosives, fireworks	4	4	5	
8	Locomotives, sparks from	8	8	8	
7	Matches	4	4	7	
8	Matches, children with (5)	24	24	8	
9	Naked light (1)(3)	8	8	9	
10	Oil, blowlamp	4	4	10	
11	engine (including petrol)	24	24	11	
12	other apparatus	4	4	12	
13	Oxyacetylene cutting and welding apparatus	4	4	13
14	Rubbish burning	4	4	14
15	Slow combustion stove igniting other materials	12	12	15
16	Smoking materials	20	20	16
17	Miscellaneous and undefined (4)	4	4	17
18	Unknown source of ignition	128	128	18
19	Total fires other than those in buildings	4	1	40	4	4	4	4	32	4	4	16	4	4	4	16	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	360	360	19	

For explanation of notes see page 25

SECTION IV

Table 8

METHOD OF EXTINCTION OF FIRES

Reports from Northern Ireland, 1958

(Frequencies obtained by multiplying results of analysis of a one-in-four sample of reports by four)

Row No.	Method of extinction	Fires in buildings						Fires other than those in buildings						Total No. of fires		Row No.
		Extinguished by Fire Brigade		Extinguished before arrival of Fire Brigade		Total		Extinguished by Fire Brigade		Extinguished before arrival of Fire Brigade		Total				
		No.	Per cent	No.	Per cent	No.	Per cent	No.	Per cent	No.	Per cent	No.	Per cent	No.	Per cent	
1	Burned out	-	-	12	1.0	12	1.0	-	-	60	5.1	60	5.1	72	6.1	1
2	Removal	40	3.4	24	2.0	64	5.4	-	-	12	1.0	12	1.0	76	6.4	2
3	Beating	-	-	-	-	-	-	28	2.4	12	1.0	40	3.4	40	3.4	3
4	Smothering	-	-	-	-	-	-	4	0.3	8	0.7	12	1.0	12	1.0	4
5	Sand, earth etc.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5
6	Water from buckets	4	0.3	96	8.1	100	8.4	16	1.3	20	1.7	36	3.0	136	11.4	6
7	Water from stirrup or hand pumps	28	2.4	-	-	28	2.4	-	-	-	-	-	-	28	2.4	7
8	Chemicals and chemical extinguishers	20	1.7	12	1.0	32	2.7	24	2.0	12	1.0	36	3.0	68	5.7	8
9	Two or more methods 3-8	-	-	-	-	-	-	4	0.3	-	-	4	0.3	4	0.3	9
10	Water from garden hose	-	-	8	0.7	8	0.7	-	-	-	-	-	-	8	0.7	10
11	Hose reel jets (using water in tank only)	344	29.0	-	-	344	29.0	96	8.1	-	-	96	8.1	440	37.1	11
12	Hose reel jets (using more water than that in tank)	20	1.7	-	-	20	1.7	8	0.7	-	-	8	0.7	28	2.4	12
13	Jets from inside hose reel or inside hydrant	4	0.3	-	-	4	0.3	-	-	-	-	-	-	4	0.3	13
14	Jets from pumps and hydrants	196	16.5	-	-	196	16.5	68	5.7	-	-	68	5.7	264	22.2	14
15	Other and undefined methods	-	-	-	-	-	-	-	-	8	0.7	8	0.7	8	0.7	15
16	Total fires attended	656	55.2	152	12.8	808	68.0	248	20.9	132	11.1	380	32.0	1 188	100.0	16

Notes on method of extinction

- "Removal" includes occurrences where (a) burning material was removed from the building, (b) gas supply was turned off. If the burning material was tackled with methods 3-8 before removing it from the building, then such occurrences were classified under whichever of these methods applied.
- Methods 11 & 12 and method 14 include those occurrences in which methods 3-9 and 3-12 respectively may also have been used.
- "Fires extinguished by Fire Brigade" include those fires which were tackled but not extinguished before the arrival of the Fire Brigade.

SECTION IV

Table 9

BEHAVIOUR OF SPRINKLER SYSTEMS AT FIRES

Reports from Northern Ireland, 1958

No incidents occurring in premises, where sprinklers were installed were observed in the one-in-four sample of reports examined.

SECTION IV

Table 10

PERSONS RESCUED OR ESCAPED BY EMERGENCY MEANS FROM FIRES

Reports from Northern Ireland, 1958

(Frequencies obtained from results of analysis of all reports)

Appliance or method used	No. of persons
Rescue with Fire Brigade assistance from	
Buildings	
Without apparatus	1
Total	1
Rescue without Fire Brigade assistance from	
Buildings	
Carried or assisted out	7
Jumping sheet	1
Total	8
Escape by emergency means from	
Buildings	
Jumping from upstairs window, roof	6
Ladder	2
Sliding down drainpipe, sheets, rope, etc.	1
Other or undefined methods	5
Total	14
Total persons rescued or escaped	23

SECTION IV

Table 11

NATURE OF INJURIES OF CASUALTIES IN FIRES

Reports from Northern Ireland, 1958

(Frequencies obtained from results of analysis of all reports)

Nature of Injury	Fire Brigades	Other Casualties	Total
Fatal casualties			
Burns and scalds	-	2	2
Overcome by gas or smoke	-	2	2
Other and undefined injuries	-	1	1
Total	-	5	5
Non-fatal casualties**			
Burns and scalds	1	27	28
Bruises, cuts, abrasions	4	6	10
Dislocations, sprains, fractures	1	2	3
Overcome by gas or smoke	-	-	-
More than one of the above injuries	-	-	-
Shock*	1	1	2
Other and undefined injuries	1	-	1
Total	8	36	44
Total casualties	8	41	49

** Excludes casualties requiring first aid treatment only.

* Casualties who suffered shock in addition to another injury have been classified according to the nature of the other injury.

SECTION IV

Table 12

FIRES CLASSIFIED ACCORDING TO THE MONTH IN WHICH THEY OCCURRED

Reports from Northern Ireland, 1958

(Frequencies obtained by multiplying the results of analysis of a one-in-four sample of reports by four)

Month of occurrence	Fires in buildings		Fires other than those in buildings		Total	
	No.	Per cent	No.	Per cent	No.	Per cent
January	100	8.4	12	1.0	112	9.4
February	68	5.7	16	1.3	84	7.1
March	84	7.1	28	2.4	112	9.4
April	84	7.1	84	7.1	168	14.1
May	72	6.1	40	3.4	112	9.4
June	48	4.0	24	2.0	72	6.1
July	48	4.0	64	5.4	112	9.4
August	36	3.0	20	1.7	56	4.7
September	60	5.1	24	2.0	84	7.1
October	68	5.7	20	1.7	88	7.4
November	72	6.1	16	1.3	88	7.4
December	68	5.7	32	2.7	100	8.4
Total fires	808	68.0	380	32.0	1 188	100.0

APPENDIX I

SELECTION AND ACCURACY OF SAMPLE

SELECTION OF THE SAMPLE

The sample is chosen at random within a two-tier stratification of all reports received. First each Brigade is regarded as a separate sampling unit; secondly the reports from each Brigade are divided into batches of $\frac{1}{f}$ consecutive reports (where f is the sampling fraction). Thus the identification numbers of the first reports in the batches from any Brigade would be 1, $1 + \frac{1}{f}$, $1 + \frac{2}{f}$, Finally, one report in each batch is chosen for inclusion in the sample by selecting at random (using tables of random numbers) a number in the series 0, 1, 2, $\frac{1}{f}$ and adding it to the number of the first report in the batch.

ACCURACY OF ESTIMATE OF NUMBER OF FIRES

The total number of fires with any particular attribute can be estimated from the number in the sample by multiplying by $\frac{1}{f}$. Thus in 1958 the number in the sample is multiplied by four. The accuracy of this estimate depends on three factors: the sampling fraction, f, the size of the sample, N, and the number of fires with the particular attribute in the sample, n. There is a 19 to 1 chance that the actual number of those fires will lie between the limits set by:-

$$n' \pm 2. \sqrt{\frac{n'(N'-n')(1-f)}{N}} = n' \pm \sqrt{\frac{n'(N'-n')}{N'}} .2. \sqrt{\frac{(1-f)}{f}}$$

where:

N = number of fires in sample

N' = estimated number of fires in population

n' = estimated number of fires with specific attribute

ACCURACY OF ESTIMATE OF PERCENTAGES

Similarly the accuracy of a percentage p can be assessed and there is a 19 to 1 chance that the actual percentage will fall between the limits set by:-

$$p \pm 2. \sqrt{\frac{p(100-p)(1-f)}{N}} = p \pm \sqrt{\frac{p(100-p)}{N'}} .2. \sqrt{\frac{(1-f)}{f}}$$

The table below sets out the sampling fractions and the appropriate values for:-

$$2. \sqrt{\frac{(1-f)}{f}}$$

which is constant for each year.

Year	Sampling fraction	Multiplier
	f	$2. \sqrt{\frac{(1-f)}{f}}$
1954	$\frac{1}{2}$	2
1955	$\frac{1}{4}$	3.46
1956	$\frac{1}{4}$	3.46
1957	full sample	0
1958	$\frac{1}{4}$	3.46

Example 1

9036 fires in England and Wales were attributed to smoking materials (Section II, Table 4). The total number of fires in the country was 90372.

$$E' = \pm 3.46. \sqrt{\frac{9036 (90372-9036)}{90372}}$$
$$= \pm 312$$

There is therefore a 19 to 1 chance that the interval 8724 - 9348 will include the actual yearly total.

Example 2

32 of the 10352 fires in Scotland were extinguished with sand, earth, etc. (Section III, Table 8).

$$E' = \pm 3.46. \sqrt{\frac{32 (10352-32)}{10352}}$$
$$= \pm 20$$

The proportionate sampling error here is large; there is a 19 to 1 chance that the interval 12 - 52 will include the actual yearly total.

Example 3

10.0% of the 90372 fires in England and Wales were attributed to smoking materials. (Section II, Table 4).

$$E = \pm 3.46. \sqrt{\frac{10.0 \times 90.0}{90372} \%}$$
$$= \pm 0.3\%$$

There is therefore a 19 to 1 chance that the interval 9.7% - 10.3% will include the true percentage.

Example 4

0.3% of the 10352 fires in Scotland were extinguished with sand, earth, etc. (Section III, Table 8)

$$E = \pm 3.46. \sqrt{\frac{0.3 \times 99.7}{10352} \%}$$
$$= \pm 0.2\%$$

There is a 19 to 1 chance that the interval 0.1% - 0.5% will include the true percentage.