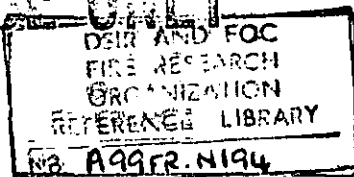


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FIRES IN POST-WAR DWELLINGS XXXIX. AN ANALYSIS OF REPORTS OF FIRES  
ATTENDED BY FIRE BRIGADES IN GREAT BRITAIN 1954

by

J. E. L. Hinton

Summary

An analysis has been made of reports of fires in post-war non-traditional dwellings returned by Fire Brigades in Great Britain in 1954.

Two hundred and fifty-six temporary dwellings were damaged by fire in 1954 (16.3 damaged dwellings per 10 000 at risk per year). About half of the total incidents were due to causes associated with the use of electricity, half of the latter number being due to faults in the electrical installation of the house. Twenty non-fatal casualties and 2 fatal casualties occurred as a result of fires in temporary dwellings.

The total rate of incidence of fire in temporary dwellings decreased in 1954 to about the same level as that of 1952. (Fig.1).

There were 296 permanent non-traditional dwellings damaged by fire in 1954, (8.8 damaged dwellings per 10 000 at risk per year). Eighty-six incidents (29 per cent of the total fires) were caused by domestic coal fires, and a further 26 by radiated heat and sparks from flues. Twenty-six serious fires occurred in permanent non-traditional dwellings, of which 7 involved B.I.S.F. and 5 Airey dwellings.

Two fatal and 27 non-fatal casualties occurred in fires involving permanent non-traditional dwellings.

The overall rate of incidence of fire in permanent non-traditional dwellings was slightly higher than the corresponding rate for 1953 (8.1 damaged dwellings per 10 000 at risk per year), but still lower than that for any other year since 1947.

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## FIRES IN POST-WAR DWELLINGS

An analysis of reports of fires attended by Fire Brigades in Great Britain during 1954.

by

J. E. L. HINTON

### INTRODUCTION

Reports of 253 incidents involving temporary dwellings and 286 involving permanent non-traditional dwellings have been received for 1954.

There were 256 temporary dwellings damaged (16.3 damaged dwellings per 10 000 at risk per year) and 296 permanent non-traditional dwellings (8.8 damaged dwellings per 10 000 at risk per year).

### I. TEMPORARY DWELLINGS

#### RATE OF INCIDENCE

The 253 incidents in temporary dwellings attended by Fire Brigades during 1954 involved 256 dwellings giving a rate of incidence of fire for all temporary dwellings of 16.3 damaged dwellings per 10 000 at risk per year. Two hundred and twenty-nine of the outbreaks were confined to the room of origin and there were 18 "serious" fires where more than half of the dwelling involved was damaged.

The distribution of fires in the various types of temporary dwelling is shown, together with the damage, in Table 1. The Phoenix and U.S.A. types had the highest rates of incidence in temporary dwellings. There are, however, only about 2 500 Phoenix dwellings in existence, so that a small number of incidents produces a high rate (28.8 damaged dwellings per 10 000 at risk).

#### CAUSES OF FIRE

The causes of fire in post-war temporary dwellings are analysed in Table 2. The greatest contributory cause was "electric wire and cable" which accounted for 65 fires, about 25 per cent of the total number of incidents in temporary dwellings. Sixty-one of these incidents were due to faults in the electrical installations and most of them were in Aluminium and Arcon houses. Thirty-five incidents were attributed to electric cookers, but 23 of these involved overheated food. About 46 per cent of the fires were due to causes associated with the use of electricity.

Another large contributory cause was "fire in grate", which was reported as the cause of fire in 44 incidents (about 17 per cent of the total).

#### MATERIAL FIRST IGNITED

There were 108 incidents where constructional materials, that is materials forming part of the permanent fittings, were first ignited. The nature of these constructional materials is shown in Table 9, from which it will be seen that insulation of electric wiring was by far the largest group.

#### CAUSES OF FIRE ANALYSED BY TYPE OF HOUSE

The causes of fire in the individual types of temporary dwellings are shown in Tables 3-8.

##### Aluminium dwellings

There were 79 incidents in Aluminium dwellings. Thirty-three of these (42 per cent), were due to faults in electric wire and cable fixed installations. This represents more than half of the total incidents due to this cause in all temporary dwellings.

## Arcon dwellings

The most important causes contributing to the incidence of fire in Arcon dwellings were "electric wire and cable" which caused 17 incidents (a rate of incidence of 4.4 per 10 000 dwellings at risk), and "fire in grate" which caused 16 incidents (a rate of incidence of 4.1). There were also 13 incidents attributed to electric cookers.

## Uniseco dwellings

There were 47 incidents in Uniseco dwellings, giving a rate of incidence of 16.2 damaged dwellings per 10 000 at risk. Twelve incidents were due to "fire in grate" and 7 to "electric wire and cable". There were also 7 incidents attributed to electric cookers.

## Tarran dwellings

Twenty-three incidents occurred in Tarran dwellings, giving a rate of incidence of fire of 12.1 per 10 000 dwellings at risk. Six of these incidents were attributed to electric cookers.

## U.S.A. dwellings

There were 17 incidents attended in U.S.A. dwellings. These involved 20 dwellings, giving a rate of incidence of 23.6 damaged dwellings per 10 000 at risk. Three of these incidents were caused by fire spreading from another dwelling.

## SERIOUS FIRES

The types of houses in which serious fires occurred are shown, together with the cause of fires, in Table 10. There were 18 serious fires, 5 of which occurred in Aluminium dwellings, 5 in Arcon dwellings and 4 in U.S.A. dwellings.

Four of the serious fires were reported as due to smoking materials and matches and a further four to unknown causes.

## CASUALTIES

In all there were 22 casualties due to fires in temporary dwellings, two of which were fatal. Both the fatal casualties were children, and in each case the incident was caused by the child's clothing becoming ignited, one by a coal fire and one by an electric fire.

Five of the non-fatal casualties were due to clothing being ignited by heating apparatus, and a further 4 casualties occurred in incidents where flammable liquid was used to light or rekindle a fire.

## COMPARISON WITH PREVIOUS ANALYSES

The rate of incidence of fire in post-war temporary dwellings decreased slightly from 17.7 in 1953 to 16.3 in 1954 (Fig.1). This decrease, however, is not a significant change and no significant change is apparent in the rates of incidence of fire in the individual types of houses.

The fires due to "electric wire and cable" decreased from 74 in 1953 to 65 in 1954, but it may be seen from the curve given in Fig.2 that this decrease was not sufficient to warrant any assumption that the previously noted tendency to increase has now been reversed.

The rate of incidence of serious fires remained at about the same level as in 1953.

## II. PERMANENT NON-TRADITIONAL DWELLINGS

### RATE OF INCIDENCE

Fire Brigades attended 286 incidents in permanent non-traditional dwellings during 1954. These involved 296 dwellings, giving a total rate of incidence of 8.8 damaged dwellings per 10 000 at risk per year. Two hundred

and fifty-three of the outbreaks were confined to the room of origin, and there were 26 "serious" fires.

The distribution of fires in the various types of permanent non-traditional dwellings is shown together with the extent of the damage, in Table 11.

#### CAUSES OF FIRE

The causes of fire in permanent non-traditional dwellings are analysed in Table 12. Eighty-six incidents, 29 per cent of the total fires, were caused by domestic coal fires and 26 by radiated heat and sparks from flues. A further 28 incidents were due to smokers materials and matches, and 29 incidents were attributed to electric cookers; twenty-five of the latter were caused by food overheating.

#### MATERIAL FIRST IGNITED

In eighty-five of the incidents occurring in permanent non-traditional dwellings, constructional materials were ignited first. The nature of these materials is shown in Table 26. Electrical insulation, ceilings, roofs and roof linings, and walls and wall linings were the main groups.

#### CAUSES OF FIRE ANALYSED BY TYPE OF HOUSE

The causes of fire and the rates of incidence for each cause in the main types of permanent non-traditional dwellings are shown in Tables 13-25.

##### Airey dwellings

There were 36 incidents in Airey dwellings, giving a total rate of incidence of 14.6 damaged dwellings per 10 000 at risk per year. Ten incidents were due to domestic coal fires (4.0 damaged dwellings per 10 000 at risk) and a further 4 incidents to domestic boilers.

##### Aluminium dwellings

Of the 14 incidents in Aluminium dwellings (7.1 per 10 000 dwellings at risk) 4 were due to "fire in grate" and 3 to electric cookers.

##### Blackburn dwellings

Eleven incidents occurred in Blackburn dwellings (13.2 per 10 000 dwellings at risk), 3 of these were due to faults in electric wiring and 3 to domestic fires.

##### B.I.S.F. dwellings

Sixty-two outbreaks of fire occurred in B.I.S.F. dwellings causing damage to 17.1 dwellings per 10 000 at risk per year. Thirteen of these incidents were due to radiated heat and sparks from flues and 10 to embers and radiated heat from fires in grates.

##### Laing-Easiform, Orlit, Wimpey, Reema dwellings

Radiated heat and sparks from domestic fires made the greatest contribution to fire incidence in each of the Laing-Easiform, Orlit, Wimpey and Reema types of dwelling.

#### SERIOUS FIRES

The causes of serious fires are shown together with the types of dwelling in which they occurred, in Table 27. There were in all 26 serious fires (0.8 damaged dwellings per 10 000 at risk); seven occurred in B.I.S.F. dwellings and 5 in Airey dwellings.

#### CASUALTIES

There were 2 fatal and 27 non-fatal casualties in fires involving non-traditional dwellings. Both the fatal casualties were children who were

burned when their clothing was ignited. In one case the source of ignition was a domestic coal fire, and in the other, a gas cooker.

#### COMPARISON WITH PREVIOUS ANALYSES

The overall rate of incidence of fire in permanent non-traditional dwellings for 1954, 8.8 damaged dwellings per 10 000 at risk per year, is slightly higher than that for 1953, but still lower than that for any previous year since 1947. (Fig.1).

The rates of incidence for the majority of the types increased but only in the case of the Airey and Spooner types were the increases statistically significant. In Cornish Unit, Laing-Easiform, Orlit, Stuart, Unity, Wates and Weir dwellings the rates of incidence were lower than in 1953.

The increase in the total number of incidents was mainly caused by increases in those due to domestic coal fires and smoking materials and matches.

The rate of incidence of serious fires increased slightly in 1954.

#### CONCLUSIONS

The group of fires of most interest in temporary dwellings is that due to faults in the electrical installation of the house. As indicated in previous analyses (1 and 2) these incidents show an increasing trend (Fig.2), and account for 25 per cent of all incidents occurring in temporary dwellings. The majority of the fires occurred in Aluminium and Arcon houses and most of them involved fuse boxes and distribution boards.

The number of fires due to electrical installations in all private houses and flats amounts to about 1 000 a year; of these about 50 incidents a year (5 per cent) occur in Aluminium and Arcon houses, a group of dwellings comprising less than 1 per cent of the total number of private dwellings at risk. Although in some cases the incidents may be the result of the overloading of circuits by householders there appears to be a definite need for an improvement of the wiring system in these dwellings, especially where it is intended to retain the temporary dwellings as housing accommodation for a further period.

Many of the incidents in the other large groups of fires in non-traditional dwellings, could be avoided by a better standard of "house-keeping", e.g. those caused by smoking materials and matches, and airing linen becoming ignited by domestic fires.

Almost all of the fires attributed to electric cookers involved overheated food, and were therefore not due to any fault in the apparatus.

#### References

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TABLE 1

THE RATE OF INCIDENCE OF FIRES IN OCCUPIED POST-WAR TEMPORARY DWELLINGS  
Reports from Fire Brigades in Great Britain 1954

Type of dwelling	Number of dwellings at risk	Number of incidents	Number of damaged dwellings				Number of damaged dwellings per 10 000 at risk			
			Total	Fire confined to room of origin	Fire spread beyond room damaging		Total	Fire confined to room of origin	Fire spread beyond room damaging	
					less than half the dwelling	more than half the dwelling			less than half the dwelling	more than half the dwelling
Aluminium .....	54 465	79	79	72	2	5	14.5	13.2	0.4	0.9
Arcon .....	38 859	77	77	69	3	5	19.8	17.8	0.8	1.3
Phoenix .....	2 428	7	7	6	-	1	18.8	24.7	-	4.1
Tarran .....	19 014	23	23	21	-	2	12.1	11.0	-	1.1
Uniseco .....	28 999	47	47	44	3	-	16.2	15.2	1.0	-
U.S.A. ....	8 462	17	20	15	1	4*	23.6	17.7	1.2	4.7
Orlit .....	255	-	-	-	-	-	-	-	-	-
Spooner .....	2 000	2	2	1	-	1	10.0	5.0	-	5.0
Universal .....	2 000	1	1	1	-	-	5.0	5.0	-	-
Other types ...	141	-	-	-	-	-	-	-	-	-
Total .....	156 623	253	256	229	9	18	16.3	14.6	0.6	1.1

\* This figure includes 2 incidents where the fire spread to another dwelling.

TABLE 2

## CAUSE OF FIRES IN OCCUPIED POST-WAR TEMPORARY DWELLINGS 1954

Reports from Fire Brigades in Great Britain 1954

Cause of Fire	Material first ignited		
	Constructional Materials	Contents	Total
Electric cooker .....	6 (0.4)	29 (1.9)	35 (2.2)
Electric fire .....	1 (0.1)	5 (0.3)	6 (0.4)
Electric other apparatus ....	1 (0.1)	11 (0.7)	12 (0.8)
Electric wire and cable .....	64 (4.2)	1 (0.1)	65 (4.2)
Fire in grate, embers, sparks, radiated heat	6 (0.4)	36 (2.3)	42 (2.7)
Fire in grate, faulty hearth	2 (0.1)	-	2 (0.1)
Flue, radiated heat or sparks	12 (0.8)	4 (0.3)	16 (1.0)
Flue defective .....	5 (0.3)	2 (0.1)	7 (0.4)
Gas cooker .....	3 (0.2)	7 (0.4)	10 (0.6)
Gas fire .....	1 (0.1)	-	1 (0.1)
Gas other apparatus .....	-	1 (0.1)	1 (0.1)
Oil stove .....	-	5 (0.3)	5 (0.3)
Oil stove overturned .....	-	2 (0.1)	2 (0.1)
Smoking materials and matches	-	19 (1.2)	19 (1.2)
Children playing with matches	-	4 (0.3)	4 (0.3)
Spread from house or flat ...	3 (0.2)	-	3 (0.2)
Miscellaneous causes .....	4 (0.3)	10 (0.6)	14 (0.9)
Total fires of known cause ..	108 (6.9)	136 (8.7)	244 (15.6)
Unknown cause .....	-	-	12 (0.8)
Total all fires .....	108 (6.9)	136 (8.7)	256 (16.3)

Note. The figures in brackets represent the number of damaged dwellings per 10 000 dwellings at risk.

TABLE 3

## CAUSE OF FIRES IN OCCUPIED POST-WAR TEMPORARY ALUMINIUM DWELLINGS

Reports from Fire Brigades in Great Britain 1954

Cause of Fire	Material first ignited		
	Constructional Materials	Contents	Total
Electric cooker .....	4 (0.7)	5 (0.9)	9 (1.7)
Electric fire .....	-	1 (0.2)	1 (0.2)
Electric other apparatus .....	1 (0.2)	5 (0.9)	6 (1.1)
Electric wire and cable .....	33 (6.1)	-	33 (6.1)
Fire in grate, embers, sparks, radiated heat	1 (0.2)	8 (1.5)	9 (1.7)
Fire in grate, faulty hearth	1 (0.2)	-	1 (0.2)
Flue radiated heat or sparks .	4 (0.7)	-	4 (0.7)
Flue defective .....	-	-	-
Gas cooker .....	3 (0.6)	1 (0.2)	4 (0.7)
Smoking materials and matches	-	4 (0.7)	4 (0.7)
Oil stove .....	-	2 (0.4)	2 (0.4)
Miscellaneous causes .....	1 (0.2)	3 (0.6)	4 (0.7)
Total fires of known cause ...	48 (8.8)	29 (5.3)	77 (14.1)
Unknown cause .....	-	-	2 (0.4)
Total all fires .....	48 (8.8)	29 (5.3)	79 (14.5)

Note. The figures in brackets represent the number of damaged dwellings per 10 000 dwellings at risk.



TABLE 4

CAUSE OF FIRES IN OCCUPIED POST-WAR TEMPORARY ARCON DWELLINGS

Reports from Fire Brigades in Great Britain 1954

Cause of Fire	Material first ignited		
	Constructional Materials	Contents	Total
Electric cooker .....	-	13 (3.3)	13 (3.3)
Electric fire .....	-	2 (0.5)	2 (0.5)
Electric other apparatus ....	-	4 (1.0)	4 (1.0)
Electric wire and cable .....	16 (4.1)	1 (0.3)	17 (4.4)
Fire in grate, embers, sparks, radiated heat	2 (0.5)	13 (3.3)	15 (3.9)
Fire in grate, faulty hearth	1 (0.3)	-	1 (0.3)
Flue, radiated heat or sparks	7 (1.8)	2 (0.5)	9 (2.3)
Flue defective .....	2 (0.5)	-	2 (0.5)
Gas cooker .....	-	3 (0.8)	3 (0.8)
Gas fire .....	1 (0.3)	-	1 (0.3)
Smoking materials and matches	-	4 (1.0)	4 (1.0)
Oil stove .....	-	-	-
Oil stove overturned .....	-	1 (0.3)	1 (0.3)
Miscellaneous causes .....	-	2 (0.5)	2 (0.5)
Total fires of known cause ..	29 (7.5)	45 (11.6)	74 (19.0)
Unknown cause .....	-	-	3 (0.8)
Total all fires .....	29 (7.5)	45 (11.6)	77 (19.8)

Note. The figures in brackets represent the number of damaged dwellings per 10 000 dwellings at risk.

TABLE 5

## CAUSE OF FIRES IN OCCUPIED POST-WAR TEMPORARY UNISECO DWELLINGS

Reports from Fire Brigades in Great Britain 1954

Cause of Fire	Material first ignited		
	Constructional Materials	Contents	Total
Electric cooker .....	2 (0.7)	5 (1.7)	7 (2.4)
Electric fire .....	-	2 (0.7)	2 (0.7)
Electric other apparatus ....	-	-	-
Electric wire and cable .....	7 (2.4)	-	7 (2.4)
Fire in grate, embers, sparks, radiated heat	2 (0.7)	10 (3.5)	12 (4.1)
Fire in grate, faulty hearth	-	-	-
Flue, radiated heat, or sparks	-	1 (0.3)	1 (0.3)
Flue defective .....	-	2 (0.7)	2 (0.7)
Gas cooker .....	-	1 (0.3)	1 (0.3)
Gas apparatus other than cooker	-	-	-
Oil stove .....	-	2 (0.7)	2 (0.7)
Oil stove overturned .....	-	1 (0.3)	1 (0.3)
Smoking materials and matches	-	4 (1.4)	4 (1.4)
Children playing with matches	-	1 (0.3)	1 (0.3)
Spread from house or flat ...	-	-	-
Miscellaneous causes .....	2 (0.7)	2 (0.7)	4 (1.3)
Total fires of known cause ..	13 (4.5)	31 (10.7)	44 (15.2)
Unknown cause .....	-	-	3 (1.0)
Total all fires .....	13 (4.5)	31 (10.7)	47 (16.2)

Note. The figures in brackets represent the number of damaged dwellings per 10 000 dwellings at risk.

TABLE 6

## CAUSE OF FIRES IN OCCUPIED POST-WAR TEMPORARY U.S.A. DWELLINGS

Reports from Fire Brigades in Great Britain 1954

Cause of Fire	Material first ignited		
	Constructional Materials	Contents	Total
Electric cooker .....	-	-	-
Electric fire .....	1 (1.2)	-	1 (1.2)
Electric other apparatus ....	-	1 (1.2)	1 (1.2)
Electric wire and cable .....	1 (1.2)	-	1 (1.2)
Fire in grate, embers, sparks, radiated heat	-	1 (1.2)	1 (1.2)
Fire in grate, faulty hearth	-	-	-
Flue radiated heat or sparks	1 (1.2)	-	1 (1.2)
Gas cooker .....	-	2 (2.4)	2 (2.4)
Gas fire .....	-	-	-
Gas other apparatus .....	-	1 (1.2)	1 (1.2)
Oil stove .....	-	1 (1.2)	1 (1.2)
Smoking materials and matches	-	4 (4.7)	4 (4.7)
Children playing with matches	-	2 (2.4)	2 (2.4)
Spread from house or flat ...	3 (3.5)	-	3 (3.5)
Miscellaneous causes .....	-	-	-
Total fires of known cause ..	6 (7.1)	12 (14.2)	18 (21.3)
Unknown cause .....	-	-	2 (2.4)
Total all fires .....	6 (7.1)	12 (14.2)	20 (23.6)

Note. The figures in brackets represent the number of damaged dwellings per 10 000 dwellings at risk.

TABLE 7

CAUSE OF FIRES IN OCCUPIED POST-WAR TEMPORARY PHOENIX DWELLINGS

Reports from Fire Brigades in Great Britain 1954

Cause of Fire	Material first ignited		
	Constructional Materials	Contents	Total
Electric cooker .....	-	-	-
Electric other apparatus .....	-	-	-
Electric wire and cable .....	3 (12.4)	-	3 (12.4)
Flue defective .....	1 (4.1)	-	1 (4.1)
Smoking materials and matches	-	2 (8.2)	2 (8.2)
Miscellaneous causes .....	1 (4.1)	-	1 (4.1)
Total fires of known cause ..	5 (20.6)	2 (8.2)	7 (28.8)
Unknown cause .....	-	-	-
Total all fires .....	5 (20.6)	2 (8.2)	7 (28.8)

TABLE 8

CAUSE OF FIRES IN OCCUPIED POST-WAR TEMPORARY TARRAN DWELLINGS

Reports from Fire Brigades in Great Britain 1954

Cause of Fire	Material first ignited		
	Constructional Materials	Contents	Total
Electric cooker .....	-	6 (3.2)	6 (3.2)
Electric other apparatus .....	-	1 (0.5)	1 (0.5)
Electric wire and cable .....	3 (1.6)	-	3 (1.6)
Fire in grate, embers, sparks, radiated heat	1 (0.5)	4 (2.1)	5 (2.6)
Flue radiated heat or sparks	-	1 (0.5)	1 (0.5)
Flue defective .....	2 (1.1)	-	2 (1.1)
Smoking materials and matches	-	1 (0.5)	1 (0.5)
Children playing with matches	-	1 (0.5)	1 (0.5)
Miscellaneous causes .....	-	1 (0.5)	1 (0.5)
Total fires of known cause ..	6 (3.2)	15 (7.9)	21 (11.04)
Unknown cause .....	-	-	2 (1.1)
Total all fires .....	6 (3.2)	15 (7.9)	23 (12.1)

Note. The figures in brackets represent the number of damaged dwellings per 10 000 dwellings at risk.

TABLE 9

NATURE OF CONSTRUCTIONAL MATERIALS FIRST IGNITED IN OCCUPIED POST-WAR  
TEMPORARY DWELLINGS

Reports from Fire Brigades in Great Britain 1954

Nature of constructional materials	Number of incidents
Roof or roof linings .....	11 (0.7)
Ceilings .....	2 (0.1)
Partitions, walls, linings to walls .....	2 (0.1)
Floor .....	3 (0.2)
Timber set in chimney .....	2 (0.1)
Other internal wooden fittings (including built-in cupboards)	6 (0.4)
Insulation of electric wiring	
(a) no fire spread .....	12 (0.8)
fire spreading to floor boards, rafters, walls, ceiling .....	7 (0.4)
(b) fire confined to fuse box panel, switchboard, distribution board, pipe and tank laggings .....	33 (2.1)
(c) fire involving (b) but spread to floorboards, rafters, walls, ceilings .....	6 (0.4)
(d) fire involving (b) but spread to other materials ....	6 (0.4)
Flue casings .....	2 (0.1)
Miscellaneous constructional materials .....	16 (1.0)
Total fires in which constructional materials were first ignited	108 (6.9)

Note. The figures in brackets represent the number of damaged dwellings per  
10 000 dwellings at risk.

TABLE 10

## CAUSE OF SERIOUS FIRES IN OCCUPIED POST-WAR TEMPORARY DWELLINGS

Reports from Fire Brigades in Great Britain 1954

Cause of Fire	Type of House						
	Aluminium	Arcon	Phoenix	Terran	Spooner	U.S.A.	Total
Electric apparatus other than cooker	1	-	-	-	-	1	2
Electric wire and cable	1	1	-	-	-	1	3
Fire in grate, embers, sparks, etc.	-	1	-	1	-	-	2
Smoking materials and matches	-	3	1	-	-	-	4
Miscellaneous causes	2	-	-	-	1	-	3
Unknown cause	1	-	-	1	-	2	4
Total .....	5	5	1	2	1	4	18

TABLE 11

RATE OF INCIDENCE OF FIRES IN OCCUPIED POST-WAR PERMANENT NON TRADITIONAL DWELLINGS  
Reports from Fire Brigades in Great Britain 1954

Type of dwelling	Number of dwellings at risk	Number of incidents	Number of damaged dwellings				Number of damaged dwellings per 10 000 at risk			
			Total	Fire confined to room of origin	Fire spread beyond room damaging		Total	Fire confined to room of origin	Fire spread beyond room damaging	
					less than half the dwelling	more than half the dwelling			less than half the dwelling	more than half the dwelling
Airey .....	24 699	32	36	28	3	5	14.6	11.3	1.2	2.0
Aluminium .....	19 610	14	14	14	-	-	7.1	7.1	-	-
Atholl .....	6 026	6	6	5	-	1	10.0	8.3	-	1.7
B.I.S.F. ....	36 344	59	62	52	3	7	17.1	14.3	0.8	1.9
Blackburn .....	8 341	11	11	11	-	-	13.2	13.2	-	-
Cornish Unit ....	19 112	6	6	6	-	-	3.1	3.1	-	-
Cruden .....	10 657	2	2	-	1	1	1.9	-	0.9	0.9
Cussins .....	1 352	1	1	1	-	-	7.4	7.4	-	-
Dorran .....	362	1	1	1	-	-	27.6	27.6	-	-
Howard .....	1 404	7	7	7	-	-	49.9	49.9	-	-
Laing Easiform ..	36 961	14	14	13	1	-	3.8	3.5	0.3	-
Orlit .....	15 918	15	16	15	1	-	10.1	9.4	0.6	-
Spooner .....	2 718	6	6	6	-	-	22.1	22.1	-	-
Stuart .....	5 223	2	2	2	-	-	3.8	3.8	-	-
Swedish Timber ..	6 010	8	8	7	-	1	13.3	11.6	-	1.7
Miller .....	5 045	2	2	1	-	1	4.0	2.0	-	2.0
Myton .....	2 110	1	1	1	-	-	4.7	4.7	-	-
Unity .....	10 815	4	4	4	-	-	3.7	3.7	-	-
Wates .....	15 407	4	4	4	-	-	2.6	2.6	-	-
Weir .....	17 443	9	9	9	-	-	5.2	5.2	-	-
Whitson Fairhurst	3 356	2	2	2	-	-	6.0	6.0	-	-
Wimpey .....	46 407	16	17	15	2	-	3.7	3.2	0.4	-
Woolaway .....	3 866	2	2	2	-	-	5.2	5.2	-	-
Reema .....	5 051	12	12	9	3	-	23.8	17.8	5.9	-
Other undefined .	-	50	51	38	3	10	-	-	-	-
Total .....	336 809	286	296	253	17	26	8.8	7.5	0.5	0.8

TABLE 12

## CAUSE OF FIRES IN OCCUPIED POST-WAR PERMANENT NON-TRADITIONAL DWELLINGS

Reports from Fire Brigades in Great Britain 1954

Cause of Fire	Material first ignited		
	Constructional Materials	Contents	Total
Electric cooker .....	1 (-)	28 (0.8)	29 (0.9)
Electric fire .....	1 (-)	10 (0.3)	11 (0.3)
Electric other apparatus .....	3 (0.1)	7 (0.2)	10 (0.3)
Electric wire and cable .....	14 (0.4)	4 (0.1)	18 (0.5)
Fire in grate, embers, sparks, radiated heat	5 (0.2)	77 (2.3)	82 (2.4)
Fire in grate, faulty hearth	4 (0.1)	-	4 (0.1)
Flue - radiated heat or sparks	19 (0.6)	2 (0.1)	21 (0.6)
Flue defective .....	5 (0.2)	-	5 (0.2)
Gas cooker .....	1 (-)	8 (0.2)	9 (0.3)
Gas fire .....	-	-	-
Gas other apparatus .....	-	2 (0.1)	2 (0.1)
Oil stove .....	-	5 (0.2)	5 (0.2)
Oil stove overturned .....	-	1 (-)	1 (-)
Smoking materials and matches	2 (0.1)	26 (0.7)	28 (0.8)
Children playing with matches	-	6 (0.2)	6 (0.2)
Spread of fire from house or flat	10 (0.3)	-	10 (0.3)
Miscellaneous causes .....	20 (0.6)	21 (0.6)	41 (1.2)
Total fires of known cause ...	85 (2.5)	197 (5.9)	282 (8.4)
Unknown cause .....	-	2 (0.1)	14 (0.4)
Total all fires .....	85 (2.5)	199 (5.9)	296 (8.8)

Note. The figures in brackets represent the number of damaged dwellings per 10 000 dwellings at risk.



TABLE 13

## CAUSE OF FIRES IN OCCUPIED POST-WAR PERMANENT NON-TRADITIONAL AIREY DWELLINGS

Reports from Fire Brigades in Great Britain 1954

Cause of Fire	Material first ignited		
	Constructional Materials	Contents	Total
Electric cooker .....	-	3 (1.2)	3 (1.2)
Electric other apparatus .....	-	1 (0.4)	1 (0.4)
Electric wire and cable .....	5 (2.0)	-	5 (2.0)
Fire in grate, embers, sparks .	-	5 (2.0)	5 (2.0)
Fire in grate, defective hearth	2 (0.8)	-	2 (0.8)
Flue, radiated heat or sparks .	-	1 (0.4)	1 (0.4)
Flue defective .....	-	-	-
Spread of fire from house or flat	4 (1.6)	-	4 (1.6)
Smoking materials and matches .	-	3 (1.2)	3 (1.2)
Oil stove .....	-	1 (0.4)	1 (0.4)
Slow combustion stove .....	4 (1.6)	-	4 (1.6)
Miscellaneous causes .....	1 (0.4)	1 (0.4)	2 (0.8)
Total fires of known cause ....	16 (6.5)	15 (6.1)	31 (12.6)
Unknown cause .....	-	1 (0.4)	5 (2.0)
Total all fires .....	16 (6.5)	16 (6.5)	36 (14.6)

TABLE 14

CAUSES OF FIRES IN OCCUPIED POST-WAR PERMANENT  
NON-TRADITIONAL ALUMINIUM DWELLINGS

Reports from Fire Brigades in Great Britain 1954

Cause of Fire	Material first ignited		
	Constructional Materials	Contents	Total
Electric cooker .....	-	3 (1.5)	3 (1.5)
Electric other apparatus .....	-	-	-
Electric wire and cable .....	2 (1.0)	-	2 (1.0)
Fire in grate, embers, sparks .	-	3 (1.5)	3 (1.5)
Fire in grate, defective hearth	1 (0.5)	-	1 (0.5)
Flue, radiated heat or sparks .	1 (0.5)	-	1 (0.5)
Gas cooker .....	1 (0.5)	-	1 (0.5)
Oil stove .....	-	2 (1.0)	2 (1.0)
Smoking materials and matches .	-	1 (0.5)	1 (0.5)
Total fires of known cause ....	5 (2.5)	9 (4.6)	14 (7.1)
Unknown cause .....	-	-	-
Total all fires .....	5 (2.5)	9 (4.6)	14 (7.1)

Note. The figures in brackets represent the number of damaged dwellings per 10 000 dwellings at risk.

TABLE 15

CAUSE OF FIRE IN OCCUPIED POST-WAR PERMANENT  
NON-TRADITIONAL BLACKBURN DWELLINGS

Reports from Fire Brigades in Great Britain 1954

Cause of Fire	Material first ignited		
	Constructional Materials	Contents	Total
Electric cooker .....	-	2 (2.4)	2 (2.4)
Electric other apparatus .....	1 (1.2)	-	1 (1.2)
Electric wire and cable .....	3 (3.6)	-	3 (3.6)
Fire in grate, embers, sparks, radiated heat	1 (1.2)	2 (2.4)	3 (3.6)
Gas cooker .....	-	-	-
Smoking materials and matches	-	-	-
Children playing with matches	-	2 (2.4)	2 (2.4)
Spread of fire from house or flat	-	-	-
Miscellaneous cause .....	-	-	-
Total fires of known cause ...	5 (6.0)	6 (7.2)	11 (13.2)
Unknown cause .....	-	-	-
Total all fires .....	5 (6.0)	6 (7.2)	11 (13.2)

TABLE 16

CAUSE OF FIRE IN OCCUPIED POST-WAR PERMANENT  
NON-TRADITIONAL SWEDISH TIMBER DWELLINGS

Reports from Fire Brigades in Great Britain 1954

Cause of Fire	Material first ignited		
	Constructional Materials	Contents	Total
Fire in grate, embers, sparks, radiated heat	-	6 (10.0)	6 (10.0)
Smoking materials and matches	-	2 (3.3)	2 (3.3)
Total all fires .....	-	8 (13.3)	8 (13.3)

Note. The figures in brackets represent the number of damaged dwellings per 10 000 dwellings at risk.

TABLE 17

CAUSE OF FIRES IN OCCUPIED POST-WAR PERMANENT  
NON-TRADITIONAL B.I.S.F. DWELLINGS

Reports from Fire Brigades in Great Britain 1954

Cause of Fire	Material first ignited		
	Constructional Materials	Contents	Total
Electric cooker .....	1 (0.3)	7 (1.9)	8 (2.2)
Electric fire .....	-	1 (0.3)	1 (0.3)
Electric other apparatus .....	-	1 (0.3)	1 (0.3)
Electric wire and cable .....	1 (0.3)	2 (0.6)	3 (0.9)
Fire in grate, embers, sparks, radiated heat	-	10 (2.8)	10 (2.8)
Flue, radiated heat or sparks	11 (3.0)	-	11 (3.0)
Flue defective .....	2 (0.6)	-	2 (0.6)
Gas cooker .....	-	4 (1.1)	4 (1.1)
Matches, children playing with	-	1 (0.3)	1 (0.3)
Smoking materials and matches	-	6 (1.7)	6 (1.7)
Slow combustion stove .....	-	1 (0.3)	1 (0.3)
Spread from other house .....	3 (0.8)	-	3 (0.8)
Miscellaneous causes .....	4 (1.1)	3 (0.8)	7 (1.9)
Total fires of known cause ...	22 (6.1)	36 (9.9)	58 (16.0)
Unknown cause .....	-	1 (0.3)	4 (1.1)
Total all fires .....	22 (6.1)	37 (10.2)	62 (17.1)

TABLE 18

CAUSE OF FIRES IN OCCUPIED POST-WAR PERMANENT  
NON-TRADITIONAL UNITY DWELLINGS

Reports from Fire Brigades in Great Britain 1954

Cause of Fire	Material first ignited		
	Constructional Materials	Contents	Total
Electric cooker .....	-	-	-
Electric other apparatus .....	-	2 (1.9)	2 (1.9)
Flue defective .....	1 (0.9)	-	1 (0.9)
Gas other apparatus .....	-	1 (0.9)	1 (0.9)
Total all fires .....	1 (0.9)	3 (2.8)	4 (3.7)

Note. The figures in brackets represent the number of damaged dwellings per 10 000 dwellings at risk.

TABLE 19

CAUSE OF FIRES IN OCCUPIED POST-WAR PERMANENT  
NON-TRADITIONAL LAINC-EASIFORM DWELLINGS

Reports from Fire Brigades in Great Britain 1954

Cause of Fire	Material first ignited		
	Constructional Materials	Contents	Total
Electric cooker .....	-	2 (0.5)	2 (0.5)
Electric fire .....	-	1 (0.3)	1 (0.3)
Electric other apparatus ....	-	-	-
Electric wire and cable .....	-	1 (0.3)	1 (0.3)
Fire in grate, embers, sparks, radiated heat	-	8 (2.2)	8 (2.2)
Flue, radiated heat or sparks	1 (0.3)	-	1 (0.3)
Smoking materials and matches	-	-	-
Miscellaneous causes .....	-	1 (0.3)	1 (0.3)
Total fires of known cause ..	1 (0.3)	13 (3.5)	14 (3.8)
Unknown cause .....	-	-	-
Total all fires .....	1 (0.3)	13 (3.5)	14 (3.8)

TABLE 20

CAUSE OF FIRES IN OCCUPIED POST-WAR PERMANENT  
NON-TRADITIONAL ORLIT DWELLINGS

Reports from Fire Brigades in Great Britain 1954

Cause of Fire	Material first ignited		
	Constructional Materials	Contents	Total
Electric cooker .....	-	2 (1.3)	2 (1.3)
Fire in grate, embers, sparks, radiated heat	1 (0.6)	4 (2.5)	5 (3.1)
Flue, radiated heat or sparks .	4 (2.5)	-	4 (2.5)
Slow combustion stove .....	-	1 (0.6)	1 (0.6)
Smoking materials and matches .	2 (1.3)	1 (0.6)	3 (1.9)
Spread of fire from house or flat	1 (0.6)	-	1 (0.6)
Total fires of known cause ....	8 (5.0)	8 (5.0)	16 (10.1)
Unknown cause .....	-	-	-
Total all fires .....	8 (5.0)	8 (5.0)	16 (10.1)

Note. The figures in brackets represent the number of damaged dwellings per 10 000 dwellings at risk.

TABLE 21

CAUSE OF FIRES IN OCCUPIED POST-WAR PERMANENT  
NON-TRADITIONAL WEIR DWELLINGS

Reports from Fire Brigades in Great Britain 1954

Cause of Fire	Material first ignited		
	Constructional Materials	Contents	Total
Electric cooker .....	-	2 (1.1)	2 (1.1)
Electric other apparatus ...	-	1 (0.6)	1 (0.6)
Electric wire and cable ....	1 (0.6)	-	1 (0.6)
Fire in grate, embers, sparks, radiated heat	-	4 (2.3)	4 (2.3)
Gas cooker .....	-	1 (0.6)	1 (0.6)
Gas other apparatus .....	-	-	-
Total fires of known cause .	1 (0.6)	8 (4.6)	9 (5.2)
Unknown cause .....	-	-	-
Total all fires .....	1 (0.6)	8 (4.6)	9 (5.2)

Note. The figures in brackets represent the number of damaged dwellings per 10 000 dwellings at risk.

TABLE 22

CAUSE OF FIRES IN OCCUPIED POST-WAR PERMANENT  
NON-TRADITIONAL ATHOLL DWELLINGS

Reports from Fire Brigades in Great Britain 1954

Cause of Fire	Material first ignited		
	Constructional Materials	Contents	Total
Electric cooker .....	-	-	-
Electric other apparatus .....	-	2 (3.3)	2 (3.3)
Fire in grate, embers, sparks, radiated heat	-	1 (1.7)	1 (1.7)
Smoking materials and matches	-	2 (3.3)	2 (3.3)
Miscellaneous .....	-	1 (1.7)	1 (1.7)
Total fires of known cause ....	-	6 (10.0)	6 (10.0)
Unknown cause .....	-	-	-
Total all fires .....	-	6 (10.0)	6 (10.0)

TABLE 23

CAUSE OF FIRES IN OCCUPIED POST-WAR PERMANENT  
NON-TRADITIONAL REEMA DWELLINGS

Reports from Fire Brigades in Great Britain 1954

Cause of Fire	Material first ignited		
	Constructional Materials	Contents	Total
Fire in grate, embers, sparks, radiated heat	-	5 (9.9)	5 (9.9)
Oil stove .....	-	1 (2.0)	1 (2.0)
Oil stove overturned .....	-	1 (2.0)	1 (2.0)
Slow combustion stove .....	-	1 (2.0)	1 (2.0)
Miscellaneous causes .....	2 (4.0)	1 (2.0)	3 (5.9)
Total fires of known cause ..	2 (4.0)	9 (17.8)	11 (21.8)
Unknown cause .....	-	-	1 (2.0)
Total all fires .....	2 (4.0)	9 (17.8)	12 (23.8)

Note. The figures in brackets represent the number of damaged dwellings per 10 000 dwellings at risk.

TABLE 24

CAUSE OF FIRE IN OCCUPIED POST-WAR PERMANENT  
NON-TRADITIONAL WIMPEY DWELLINGS

Reports from Fire Brigades in Great Britain 1954

Cause of Fire	Material first ignited		
	Constructional Materials	Contents	Total
Electric cooker .....	-	2 (0.4)	2 (0.4)
Electric other apparatus .....	1 (0.2)	-	1 (0.2)
Fire in grate, embers, sparks	-	7 (1.5)	7 (1.5)
Gas cooker .....	-	-	-
Gas other apparatus .....	-	1 (0.2)	1 (0.2)
Smoking materials and matches	-	1 (0.2)	1 (0.2)
Children playing with matches	-	1 (0.2)	1 (0.2)
Spread from house or flat .....	1 (0.2)	-	1 (0.2)
Miscellaneous causes .....	2 (0.4)	-	2 (0.4)
Total fires of known cause ...	4 (0.9)	12 (2.6)	16 (3.4)
Unknown cause .....	-	-	1 (0.2)
Total all fires .....	4 (0.9)	12 (2.6)	17 (3.7)

TABLE 25

CAUSE OF FIRE IN OCCUPIED POST-WAR PERMANENT  
NON-TRADITIONAL HOWARD DWELLINGS

Reports from Fire Brigades in Great Britain 1954

Cause of Fire	Material first ignited		
	Constructional Materials	Contents	Total
Fire in grate, embers, sparks	2 (14.2)	-	2 (14.2)
Flue, radiated heat or sparks	1 (7.1)	-	1 (7.1)
Flue defective .....	2 (14.2)	-	2 (14.2)
Smoking materials and matches	-	1 (7.1)	1 (7.1)
Miscellaneous causes .....	1 (7.1)	-	1 (7.1)
Total fires of known cause ..	6 (42.7)	1 (7.1)	7 (49.9)
Unknown cause .....	-	-	-
Total all fires .....	6 (42.7)	1 (7.1)	7 (49.9)

Note. The figures in brackets represent the number of damaged dwellings per 10,000 dwellings at risk.

TABLE 26

NATURE OF CONSTRUCTIONAL MATERIALS FIRST IGNITED IN OCCUPIED POST-WAR  
PERMANENT NON-TRADITIONAL DWELLINGS

Reports from Fire Brigades in Great Britain 1954

Nature of constructional materials	Number of Incidents
Roof or roof linings .....	12 (0.4)
Ceiling .....	13 (0.4)
Partitions, walls, linings to walls .....	11 (0.3)
Floor .....	6 (0.2)
Timber under hearth .....	2 (0.1)
Other internal wooden fittings including built-in cabinets, cupboards	4 (0.1)
Insulation of electric wiring	
(a) No fire spread .....	5 (0.2)
(b) Fire confined to fuse box panel, switchboard, distribution board, pipe and tank laggings	4 (0.1)
(c) Fire involving (b) but spread to contents .....	-
(d) Fire involving (b) but spread to walls, floors, ceilings, rafters, built-in cupboards	4 (0.1)
(e) Fire involving other materials .....	1 (-)
Flue casings .....	2 (0.1)
Lagging of water pipes .....	5 (0.2)
Miscellaneous constructional materials .....	16 (0.5)
Total fires in which constructional materials were first ignited	85 (2.5)

Note. The figures in brackets represent the number of damaged dwellings per 10 000 dwellings at risk.



TABLE 27

CAUSE OF SERIOUS FIRES IN OCCUPIED POST-WAR PERMANENT  
NON-TRADITIONAL DWELLINGS

Reports from Fire Brigades in Great Britain 1954

Cause of Fire	Type of dwelling						
	Airey	Atholl	B.I.S.F.	Swedish	Cruden	Other Types	Total
Electric fire .....	-	-	-	-	1	-	1
Electric other apparatus	-	1	-	-	-	-	1
Electric wire and cable	-	-	-	-	-	1	1
Fire in grate, embers, sparks, radiated heat	1	-	1	1	-	-	3
Flue, radiated heat or sparks	-	-	2	-	-	-	2
Flue defective .....	-	-	1	-	-	-	1
Gas cooker .....	-	-	-	-	-	-	-
Slow combustion stove ..	1	-	-	-	-	1	2
Spread of fire from house or flat	-	-	1	-	-	1	2
Miscellaneous causes ...	-	-	1	-	-	6	7
Unknown cause .....	3	-	1	-	-	2	6
Total .....	5	1	7	1	1	11	26

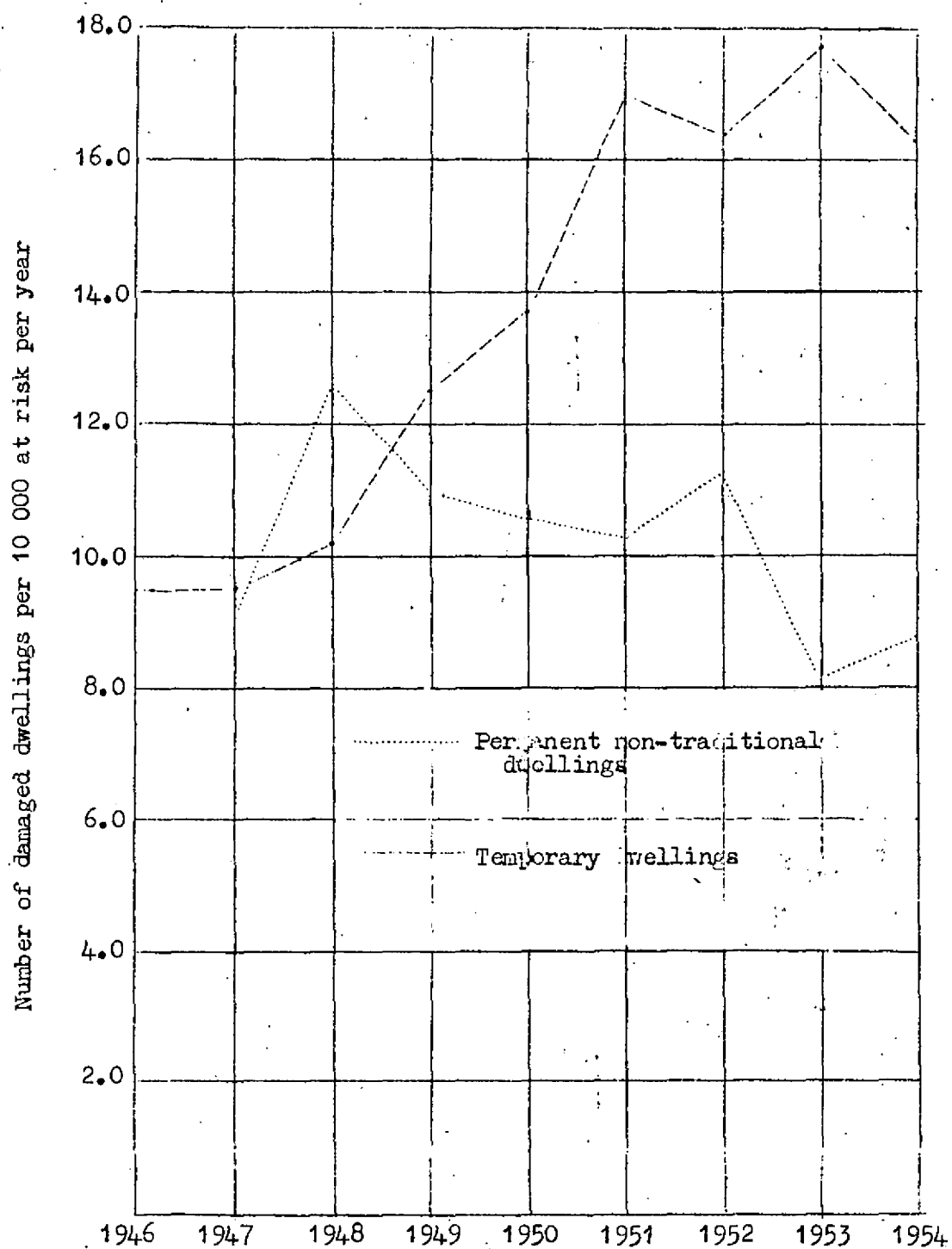


FIG. I. RATES OF INCIDENCE OF FIRE IN POST-WAR NON-TRADITIONAL DWELLINGS

(Number of damaged dwellings per 10 000 at risk per year)

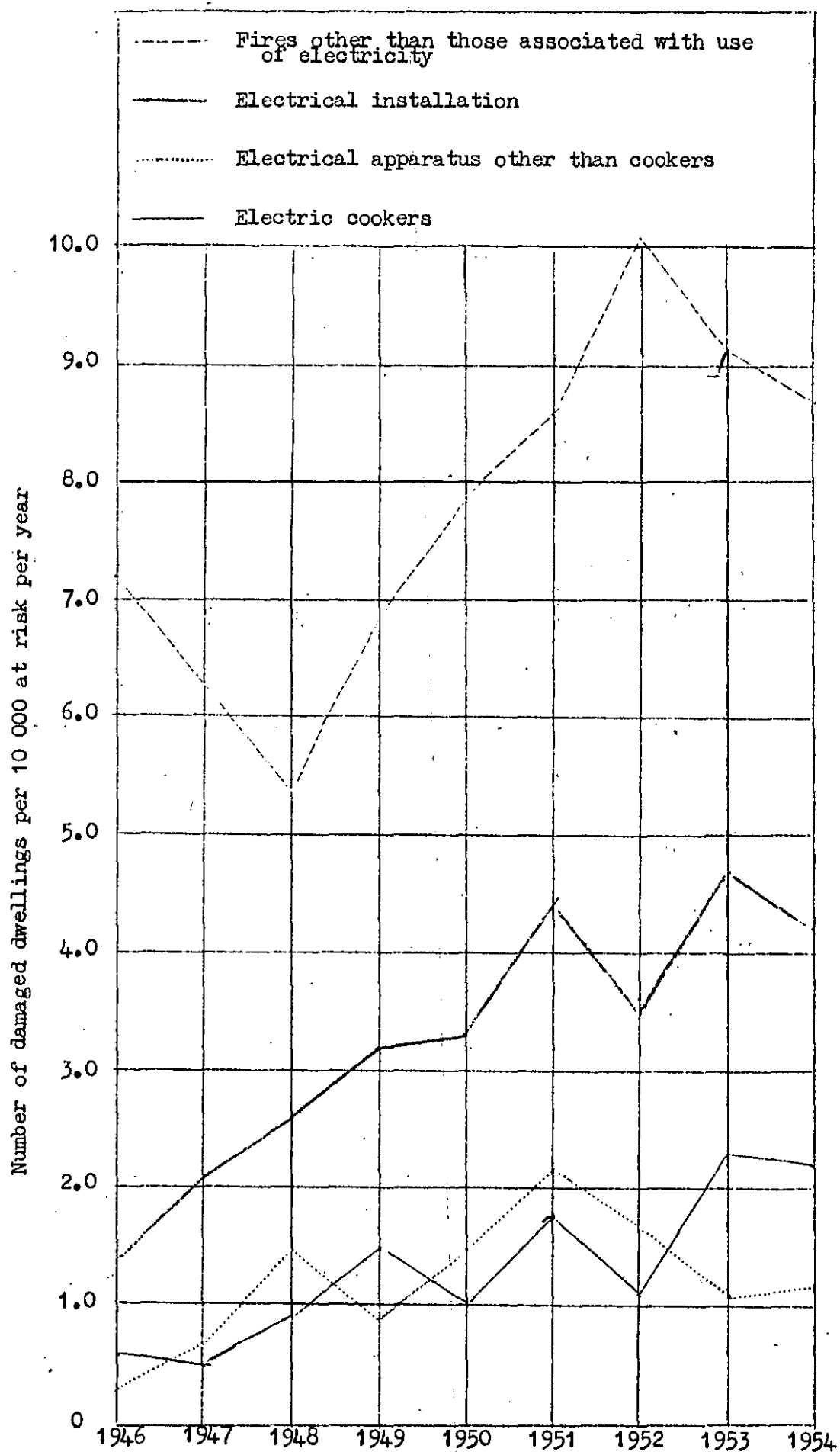


FIG. 2. CAUSES OF FIRE IN POST-WAR TEMPORARY DWELLINGS

(Number of damaged dwellings per 10 000 at risk per year)

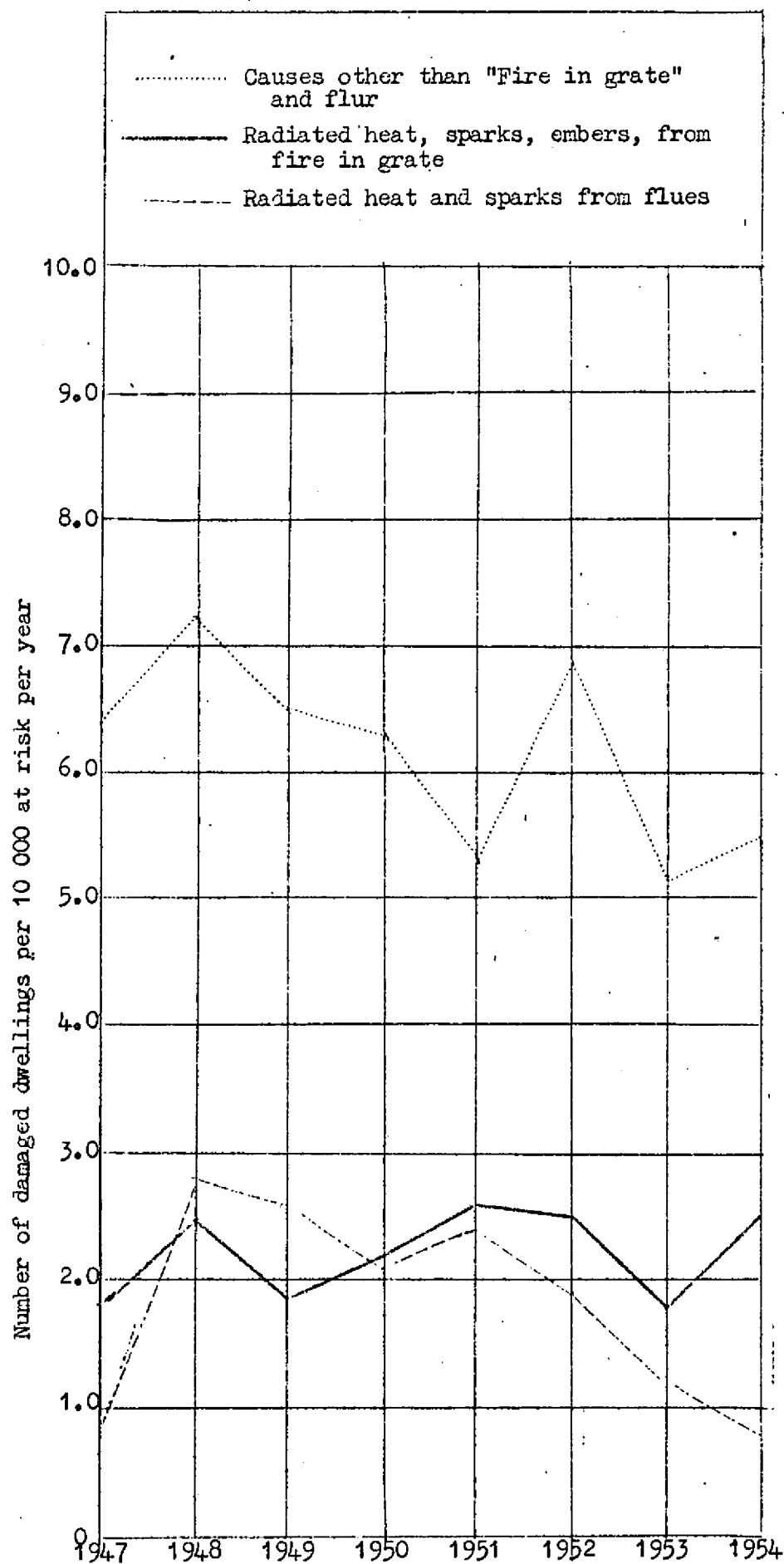


FIG. 3. CAUSES OF FIRE IN POST-WAR PERMANENT NON-TRADITIONAL DWELLINGS

(Number of damaged dwellings per 10 000 at risk per year)