

Fig. 6 Case II — Body fragments sorted

Table 1
Persons Presumed Killed

Name	Sex	Age
Marcella	F	1
Romona	F	3
Iver	M	3
Audrey	F	9
Geraldine	F	14
Leonard	M	17
Evelyn	F	18
John Sandfly	M	50

the spine showed osteoarthritis (Fig. 7). Establishment of sex was possible in six of the nine victims. In two of these the incinerated remains of external genitalia could be identified; in the remaining four bodies, section of the charred pelvic organs either established the presence of uterine and ovarian structures in the females, or the absence of structures intervening between the urinary and rectal tracts in the males. Where internal pelvic organs were found, their gross

structure was confirmed by microscopic section which demonstrated in the different victims, infantile ovary with primary follicles (Fig. 8), endometrium (Fig. 9), and immature prostatic tissue.

An attempt was then made to match the fragmented bodies identified, and the alleged victims, for age and sex. The results of this are shown (Table 2). Five of the nine presumed victims could presumptively be identified, by estimated age and established sex. Two pairs of victims remained which could not be distinguished. Two young girls, Audrey and Geraldine, were presumed to be represented by specimens numbers 1 and 3, but were undistinguishable by size, and sex could not be established in either. Two young adult males were present, whereas only one appeared on the list of presumed victims given. The only one of the alleged inhabitants of the house over the age of 25 was presumptively identified by the presence of osteoarthritis of the spine, though no sexing was possible on these remains

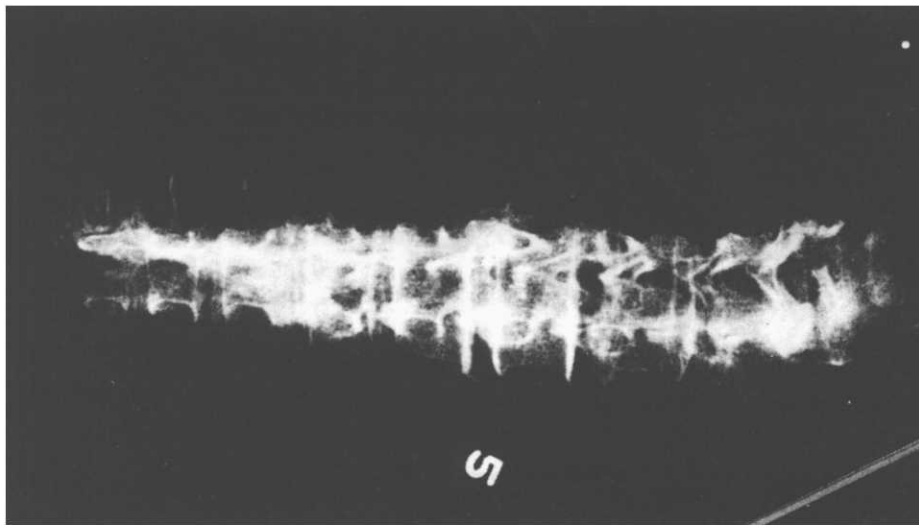


Fig. 7 Case II — X-ray spine fragment with osteoarthritis

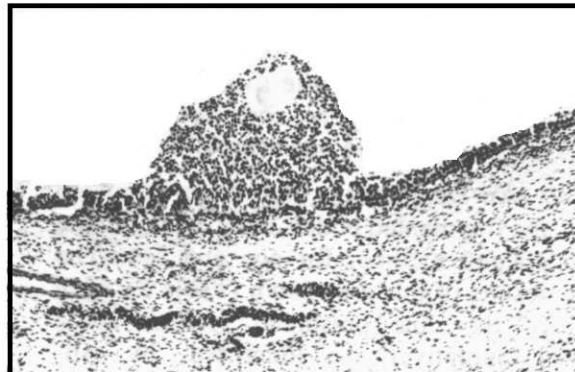


Fig. 8 Case II — Section infant ovary with primary follicle

Apart from the presence of an additional body of a young adult male, a reasonable match could be made between the presumed inhabitants and the fragmented bodies of the victims. After consultation with the local police representatives, it appeared likely that the additional body was that of David, another member of the family about whose activities on the night of the fire

there were conflicting accounts. It was alleged by other members of the community that David, who had been disaffected with his family since the murder of his father by his mother a year before, had been in possession of gasoline in the house on the night of the fire. Conflicting stories were given as to whether this gasoline was for the purpose of sniffing, for the legitimate lighting of a fire, or

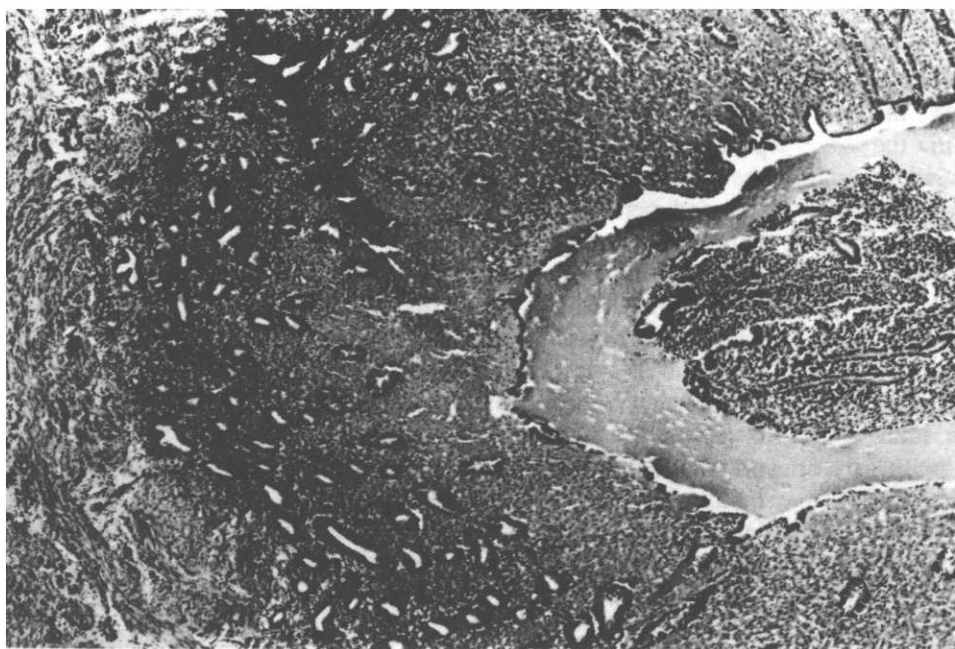


Fig 9 Case II — Section endometrium

Table 2
Matching

Name	Specimen	Age	Sex
Marcella	9	1	F
Romona	6	3	F
Iver	2	3	M
Audrey	(1	9	No)
Geraldine	(3	14	No)
Evelyn	7	18	F
John Sandfly	5	50	No
Leonard	(4	Young Adult	M)
Body D	(8		M)

with the announced intention of incinerating his home and relatives. Conflicting accounts were also given as to whether David had been seen to flee from the dwelling at the time of the fire, or to enter it.

No further evidence was available for definitive identification of any member of the family. No ante-mortem dental records could be discovered, nor were

the dental remains adequate for purposes of identification. The local police were therefore given a list matching the fragmented victims with the presumed inhabitants of the house, and the information that while the additional victim was compatible in age and sex with David, no definitive identification could be given. David has not reappeared in the year following the fire, and is presumed to have been the ninth victim.

This case presents a number of problems different from those of the relatively straightforward Case I. Failure to make site plans and to identify the bodies according to position in the dwelling prevented any attempt at identification by the presumed position of victims within the house at the time of its destruction, information which is often available. The virtually total destruction of dentition, and the absence of ante-mortem dental treatment or records, prevents the use of this most common and accurate means of definitive identification. Variation and mutual incompatibility of the varied accounts of alleged eyewitnesses, most of whom were probably in an advanced stage of intoxication, again reduces the validity of any information as to presumed occupants of the dwelling.

Additional means of identification which may be used, but which were not available in this case, relate to the age of the victims and to known or supposed medical conditions. Where all the victims are under the age of 25, there is little use in seeking signs of aging as arteriosclerosis. The presence of luteinization in the endometrium may permit distinction between females of prepubertal and postpubertal age. The presence of identifiable results of medical procedures, such as implanted bony or joint prostheses, reconstructive operations on the intestine, or the removal of organs is unfortunately more common in fiction than in fact.

The lesson to be learned from this case is the validity of determined and detailed application of routine methods. It might have made identification easier if a site plan with identification of the

relative positions of the fragmented bodies could have been secured and the bodies separately packed, though I attach no blame to the over-worked local police detachment, itself remote from the scene of the fire, for this omission. Dogged persistence in dissection of apparently completely incinerated remains is much more productive than the inexperienced pathologist realizes; the gross and microscopic identification particularly of pelvic organs may often be achieved. Where possible natural disease such as coronary arteriosclerosis may have been contributory to the events leading to an accident in incineration or lead to presumptive establishment of age, again persistent dissection will often yield evidence from what appears initially to be completely unrewarding material.

The free use of X-ray, and the cooperation of an expert X-ray department is invaluable in such cases. Routine X-ray of burned and indeed of other victims coming to forensic autopsy should be mandatory but regrettably there are very few pathology departments designed, equipped and staffed for such procedures. As well as determination of age and possibly of sex, the demonstration of prosthetic material or other foreign bodies, and the possibility of demonstrating missiles are all types of evidence which may be yielded by X-ray examination.

Finally, in Case II, the demonstration of the presumptive remains of David obviated the necessity for a detailed, prolonged and expensive police search which would almost certainly have been completely negative