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ARSON INVESTIGATION

E. A. Wakefield

E. A. Wakefield is General Manager of the Fire Underwriters' Investigation Bureau of Canada, Inc., Montreal, a position which he has held since 1947. Mr. Wakefield has had wide experience in the investigative field serving for ten years first as a member of the Investigation Department of the Canadian National Railways and then with the Royal Canadian Mounted Police. In 1936 he accepted a position as Special Agent Investigator with the Fire Underwriters Bureau and has served in various capacities in this organization since that time. In addition to this extensive investigative experience, a great portion of which has been in arson investigation, he has served as a lecturer on several arson school faculties, including Purdue University and the R.C.M.P. Training Course. In his present article Mr. Wakefield discusses a number of important questions which are common to all arson investigations.—EDITOR.

Many crimes are committed throughout Canada and the United States, but not one of them contain all the dastardly elements found in the crime of arson.

Almost every police body specializes in various branches of crime detection; we can find homicide divisions, safeblowing squads, bank details, pick-pocket, shop lifting, morality, juvenile, missing persons, et cetera, yet very few arson squads are maintained as separately trained units. Why? Not because it is as a crime insignificant, for arson is very common, quite prevalent, and does more harm than any other single crime. It is a weapon for murder, robbery, assault, fraud, revenge, spite and, when completed, has destroyed in many cases the evidence that it was even committed.

In the last statement lies the real reason for such a lackadaisical attitude towards arson as a crime. It is too easy to place the cause of a fire to some classification other than arson, and too hard to prove it was arson.

This writer is speaking now as a former police officer. You cannot hide the fact that a robbery has been committed; that an assault has taken place; that a pocket was picked; that a murder was committed. The physical evidence is there to confront you and the world. The only thing left to do is to investigate. It should be the same with arson, but unfortunately we do not find, except in very rare locations, a unified base from which to operate. The fire officials will pass it on to police officials as a criminal matter, or the police will toss it over to the fire officials as a fire problem. Both departments have their time fully occupied in attending to their regular duties. The arson squad is the answer.

In the field of fire officials we can find a similar situation, the Fire Marshal's Department doing splendid work, far too much work and too few men, insufficient personnel to set up a separate and distinct arson

squad, so fire prevention and inspection is combined with arson and arson is a full-time job.

Arson is a full-time job because it requires the combined knowledge of fire and all the capabilities of a full trained criminal investigator.

There are very few cases of arson known to be such at the very outset. That is the reason for knowledge of fire. The ability to trace the fire back to its point of origin, and until the investigator is capable of doing that, he is unable to determine anything.

Every fire will act in a different way depending on the combustible substance, the amount of available oxygen, the heat that can be generated, the ease with which it can spread, et cetera, but one thing is standard to them all—there must be a combustible substance, there must be oxygen, and there must be ignition heat. This knowledge is common to all fires. We know that all three items were in existence, otherwise there would not have been a fire, but the investigator's job is to first trace back to the point of origin and find the actual existence of the three factors and, more important, were they normally situated at that spot and sufficient quantities of each element to start and support the fire.

The next step to establish is how they combined together. How the combustible substance came into contact with the ignition heat of such degree to cause it to break out into flame. This primary step is, more often than not, the place where the case is dropped. It involves a lot of hard and dirty work, and it is very much easier to say a dropped cigarette or short circuited electric wire caused the fire. Yet even these reasons do not clear the case from the arson list because they can, and are, used by arsonists to accomplish their deed. It is not meant to imply that every fire attributed to careless smoking or defective wiring, is arson, but we have had many cases that were, and this writer is firm in his belief that many more cases so classified are erroneous. The elaborate methods once so dear to the heart of the arsonists, have now largely disappeared. Only very rarely will be found the contraptions that embodied intricate delaying units and complicated assembly. The modern arsonist will even despise the simple candle. The trend now is to make arson appear, as much as possible, accidental. This makes it more important for the investigator to dig into the background of suspected fires very thoroughly. A most recent example was that of a fire where it was quite apparent and conclusively proven by the physical evidence, that an electric iron had been the cause of the fire. The proof that it had been left with intent to cause the fire was obtained only by circumstantial evidence leading to a confession through interrogation. Such a fire could easily have been disposed of and classified as accidental.

The investigator then is faced with the comparatively easy task of finding the necessary elements for the fire and the very difficult task of proving how they came together. The evidence as to what combustible substance was at the point of origin, can be proven in many ways; either by debris, ashes, or verbal testimony of the people having access to that point. The quantity and supply of oxygen can be known as adequate in open spaces and determined as sufficient or otherwise, in closed spaces such as cupboards and the like. The ignition heat is the factor requiring the most rigid examination, and even after it is established, to prove its contact was by criminal design. An overheated stove pipe caused one good fire, and a lot of hard work was required of the investigator to prove the stove had been pushed against the wall with the deliberate intention of causing the fire.

Tracing the path of fire back to its point of origin is another step common to all fires. The investigator has only two methods—tracing by extent of burning or charring, where the fire resulted in only partial destruction, and verbal testimony of the first person who saw the fire, followed by fire fighters' testimony as to its passage where the fire resulted in total destruction. When the point of origin has been established, great care must be exercised in the examination of the debris in the attempt to determine the ignition heat, for it must be always kept in mind that this factor is of prime importance to the case. It is often at this point the case may be made or lost. Here the investigator is looking for the unusual; a difference even of the color or texture of the ashes may sometimes be the lead that the chemical analysis will substantiate and prove a point.

Great care must be taken in removing anything from this point—it should be photographed, witnessed, and sketched complete with measurements before it is disturbed, then carefully preserved for the laboratory examination by qualified experts. If in doubt as to what the proper method of protection may be for any substance, make sure first by calling the laboratory experts; they can then instruct as to the proper method of protection and preservation. Continuity of possession of any possible exhibit should always be adequately protected. It is assumed that the investigator is armed with legal authority as to removing the article for use as a possible exhibit. While as a general rule the courts do not concern themselves about the legal possession of exhibits, it is always much safer to avoid argument by ensuring that the article is properly and legally seized at the time of removal. If at all possible, three samples should be prepared for analysis—one for the analyst, one for the suspect or owner of the premises where the suspected crime took place, and one

for reference, the latter to be retained in its original condition; each sample to be sealed or properly protected and secured by identification. The fewer the number of people handling the exhibit between its seizure and the analyst, the better, not only from the viewpoint of continuity of possession, but the court's patience can often be taxed and the efficiency of the investigator frowned upon if the line of witnesses to prove a simple point should be more than absolutely necessary.

In the examination of the debris, one must be very careful if no ignition heat source can be noted at the point where all the verbal testimony and the tracing of the fire passage shows the flame broke out and was first visible. It may be that a leader was used from some form of heating device, located for example in a basement, extending to the upper floors, using a slow burning fuse, and the remains would be very minute at the point where the fire became visible, whereas the starting device might be found at some other location in the debris.

How the fire occurred is, of course, the investigator's first concern, and every effort should be made to establish it. The next important stage is why it happened. It will be seldom indeed that the guilty person will be seen setting the fire in actuality, so why it was set is going to be a vital step in leading to who set it. Once you have established that it was set by human design and intent, then you have every human suspected of the crime until the answer to why should free them. The answer to "Why" of course is the motive. While it is not necessary to prove the motive in the Courts, if you can prove who committed the crime, it is a very strong link in the chain of evidence and in arson, particularly, where the majority of cases will be based on circumstantial evidence. The question of motives cannot be left out of the Arson Investigations: it is the reason for the crime itself and, with the permission of Dr. R. C. Steinmetz, Chief Special Agent of the Mutual Investigation Bureau, is reproduced his treatise on motives which, in my opinion, is one of the most complete ever compiled on this subject.

MOTIVES FOR ARSON

"The first question that generally arises in the mind of practically everyone after a crime has been discovered is—'Why was the crime committed?'"

"The motives for arson, with reference to business and industry, have been arranged under five main classifications and are as follows:

1. Economic gain. Assured benefits directly.
2. Economic gain. Assured is innocent party, but the perpetrator benefits directly or indirectly.
3. Personal satisfaction, attainment of goal, or furtherance of a cause.
4. Concealment of some other criminal act.
5. Arson by the mentally afflicted.

"In the first classification where there is an economic gain and the assured benefits directly, some of the more important motives are as follows:

- a. Quick liquidation of a business enterprise.
- b. Settlement of an estate.
- c. Absence of a ready market for the stock.
- d. Obsolete merchandise or machinery.
- e. Failure to receive expected orders.
- f. Termination of a seasonal business.
- g. Desire to avert failure.
- h. Urgent need for ready cash.
- i. Sale of land without buildings.
- j. Inability of manufacturer to fulfill certain contracts. (Quite often clause included in contract to effect that in event of fire the manufacturer is not to be held responsible for unfilled orders.)
- k. Desire to terminate a partnership.
- l. Business quarters outgrown.
- m. Desire to move from a certain locality.
- n. Assured has been able to obtain too much fire insurance coverage.
- o. Building has been condemned because of unsanitary conditions.
- p. Scarcity of raw material.

"Where there is economic gain and the assured is an innocent party, but the perpetrator benefits directly or indirectly, some of the more important motives, and persons who might foster such motives, are as follows:

- a. Adjusters—to secure contract to adjust the loss.
- b. Insurance agents—to stimulate business.
- c. Building contractors—to secure the contract to
 - (1) Rebuild
 - (2) Wreck
- d. Competitors—to stifle competition.
- e. To secure employment as:
 - (1) Watchman
 - (2) Fireman
 - (3) Policeman
- f. To secure contract to handle the salvage or to purchase salvaged material.

"Fires started for some personal satisfaction, for the furtherance of a cause, or for the attainment of some goal have indeed been numerous and costly. Many of these motives occur during national or international crises and thus are of the utmost importance today. In this classification are:

- a. Sabotage.
- b. Riots.
- c. Strikes.
- d. Hatred
 - (1) For revenge
 - (2) For spite
 - (3) As a result of jealousy.
 - (4) As a result of feuds.
- e. Intimidation.

"Resorting to arson in an attempt to conceal some other crime includes a variety of motives which may be classified as follows:

- a. To obliterate evidence:
 - (1) To cover up the fact that there is a stock shortage.
 - (2) To destroy records.
 - (3) To conceal murder, burglary, or larceny.

b. To divert attention of watchman, custodian, law-enforcement officer, or general public:

- (1) For the purpose of looting premises.
- (2) To burglarize another location in the same community.

c. To break out of jail, penitentiary, state hospital, or some other institution.

"The company grain elevator manager sometimes burns his elevator when the company by whom he is employed contemplates an audit of his records. Dishonest bookkeepers and accountants who have been indulging in pleasures and luxuries, which their income will not warrant, have resorted to arson to destroy records showing embezzlement, forgery, and false entries. Safe blowers and others who have committed burglary, often use explosives and incendiary bombs in an attempt to destroy the physical evidence of their crimes. Murderers, at times, try to conceal their victims and evidence by setting fire to the room, house, building, or car containing the body.

"And lastly, we will consider briefly persons who are motivated to commit arson because of certain mental afflictions, as follows:

a. Sufferers from some form of insanity:

- (1) Pyromania
- (2) Paranoia

b. Psychopaths without a psychosis.

- (1) Policeman 'discovers' fire he started and turns in alarm.
- (2) Fireman starts fire in order to make spectacular rescue of building occupants.
- (3) Desire to create excitement. The thrill of seeing Fire Department in action.
- (4) Desire to accomplish something. A means of satisfying the 'ego' even though the accomplishment is of a destructive nature.

c. Drug addicts and alcoholics.

d. Idiots, imbeciles, and morons.

e. Epileptics.

"A pyromaniac is one who starts fires because of an irresistible urge, desire, or passion for fire. His craze for the fire may be satisfied only by starting the fire. In other cases, satisfaction may be realized by merely watching leaping flames. Other pyromaniacs seem to derive some sexual gratification during the perpetration of the act, or during the course of the fire.

"The paranoiac suffers from a chronic mental disorder characterized by systematized delusions of persecution and greatness, sometimes with hallucinations. Persons who have been discharged, or employees who believe they are being persecuted by their employers because of their failure to receive wage increases, promotions, or special favours, may be diagnosed as paranoiacs when they resort to arson as a means of retaliation.

"Alcoholics have been known to start numerous fires while under the influence of liquor. Imbeciles, morons, and idiots have also caused Fire Departments a great deal of trouble along these lines and epileptics have been known to commit arson."

As can be readily noted, the motives are quite varied and numerous. Quite often it will be hidden so deep and only within the mind of the criminal, that the investigator will never learn it unless the arsonist reveals it himself. So, here we can find the situation where the knowledge of the motive can lead to the arsonist, and, on the other hand, you

may have to catch the arsonist in order to learn the motive. The establishment of the motive requires more often than not, many hours of hard plugging and interviews. The circumstances uncovered so far will have narrowed down the field of suspects, and the question and answer game will now further reduce it.

Here again a warning must be issued, particularly where you are going to interview someone with a specific purpose in mind, and not just a fishing expedition. It will often develop that you must delve into the background of the person you are going to interview to ascertain you are on safe and fertile ground. Family relations do not always bear the same name—marriage provides in-laws, et cetera. There was the case of an investigator who was doing famously in his interview until he realized he was getting some pretty “close to the chest” information. Remark- ing on this, he was informed his source of information was the brother- in-law of the suspect.

A very important reason for establishing the motive is the psycho- logical effect it has upon the suspect. In nearly all cases, the stock phrase is “Why should I set the fire?” (either to his own or some other prop- erty). Now the suspect asks that question because he feels quite confi- dent it cannot be answered. He feels that he alone knows the answer to that question, consequently, if he is given the answer, it shakes him. It disturbs his mental process and panic starts to creep in; it immediately arouses the thought “What more do these people know about me?”

A certain investigator received what might be called a piece of double- barrelled information; it both established the motive and broke down an alibi. The case involved a business man suspected of setting a factory on fire. The alibi was set up as an all-night card game and backed up by a couple of relatives and friends. The investigator, going into background and habits, found that the suspect travelled twice a month to a certain town. At that point, two taxi drivers completed the identification and also furnished the address, which eventually turned out to be a love nest. The paramour, while willing to break up a home, was not willing to face any sort of trouble, and told of her lover’s late arrival the night of the fire and his plan to collect the insurance and the two of them leaving the district and starting up somewhere else. One can well imagine the shock this man got when he asked “Why should I set my own place on fire?” and the investigator was able to supply the answer.

The same case carried another important lesson, the value of complete check into the background of the suspect. It seems to be sort of a ritual that, when a fire is going to be set, the person who owns the property is going to be absent, whether he sets it himself or not, but he must be

somewhere, so he prepares his alibi with as much care as the fire itself. The alibi is very often the greatest mistake he makes. If it is a place that he frequents and is well known, then it will be well to check into the hours he usually shows up there, and also the people there are quick to notice any change in his demeanor. If it is a place where he is not known, then he must do something to draw attention so that he will be remembered. These oddities are the pitfalls in the establishment of any alibi.

If there is one asset indispensable to the making of a real investigator, it is the ability to interrogate witnesses and suspects. There is a decided difference in the two techniques. Both cannot be handled in the same manner. The basic foundation for sound interrogation is the ability to judge personalities. What kind of person are you about to question? Until you can answer that question, you should not ask one. It is often advisable to make a second visit, using the first call only to size up the subject. Time is not important: thoroughness and accuracy are most important.

In the majority of cases, the main difference between interrogating a witness and a suspect is that, in the case of witnesses, they possess knowledge which they now know to be important to someone, and are willing, to go further, they are eager to tell what they knew. In the case of the suspect, if he happens to be the guilty party, he possesses knowledge but is not eager to tell and most anxious that no one else find out anything. However, simply because it is human nature to want to talk, especially to tell some person something they do not know, it does not necessarily mean they will impart that knowledge to everyone.

The approach, manner, and method are the keys to the store of knowledge locked up in someone's mind. The approach that would be preferred in some cases would bar you forever in others. Likewise, the manner and method of interrogating one person with ease and dispatch would antagonize another to the point of hostility or would arouse distrust or fear of the interrogator. Whenever the witness starts to speak, let them go, even if they go on and on. This writer has seen people clam up so fast and feel really hurt because they were not permitted to tell it their way. Recently, the author had the privilege of reading a report from a so-called investigator containing the interview, which went like this: (Q) "Were you driving the car that night?" (A) "Yes" (Q) "Were you alone?" (A) "Yes" (Q) "Did your sister intend going with you?" (A) "No" (Q) "Did you arrive before midnight?" (A) "No." That report contained about one hundred and twenty-five questions, and the answers were simply Yes or No. That investigator did not learn half the story that particular witness knew. Sub-

sequently, when he was properly interviewed and a real statement taken from him, the first interrogator expressed great surprise and exclaimed "Why did you not tell me all that when I came to see you?" and was quite disgruntled to receive the reply "You did not ask me." It is expected that the investigator will have to listen to a lot of immaterial factors, but he can count on receiving a complete account. Specific questioning should only take place when the witness has finished his story. Another vital reason for allowing this uninterrupted story is, it is much easier to detect a concocted story by two or more people involved, for the rehearsed story is complete and contains immaterial items that are just not reasonable when emanating from two sources. A very good case was broken wide open when a husband and wife, the only people within miles at the time they set fire to their home, were allowed to relate their story. They were interviewed separately and merely asked to relate the circumstances as they knew them. Their stories could have been carbon copies, but when specific questioning followed the variances that each made in answering, served to show the ridiculous impossibility of what otherwise could have been a very good account of the origin of the fire. In this particular case, each one of them opened up the account of the fire by starting just after lunch time, going through the various actions of each, including some very minor and immaterial points, then concluding their stories at the same point following the fire.

Dealing with the suspects—and they are merely suspects until charged or a confession obtained—the interrogation must here take divers paths in the attempt to unlock the secrets of their minds. The difficulty of Arson Investigation is once again brought to the fore. Arson being a secretive sort of crime in its commission, circumstantial evidence is all that faces the suspect, and the duty of the investigator is to portray these circumstantial factors in such a positive light that they appear to be proven facts. This one point is not as difficult as it may sound. It is almost impossible for the culprit to view the crime with a completely detached mind. He was there; he committed the crime; he knows every step that was taken in its commission. Consequently, what is merely circumstantial evidence to a Court of Law, is actual knowledge to the culprit, and if he can be made to feel that you are as equally positive, the battle is yours. Yet the investigator must be a consummate actor to accomplish this.

The approach, manner, and method is again all important. Both sides have everything at stake—the culprit his liberty and the investigator his case. The investigator must not open up with all the facts, that is dangerous because, should the culprit withstand all the approaches, then the

defense has been armed and can be prepared to meet each and every issue. A gradual and sympathetic approach to the problem is the safer and saner way of obtaining the desired result. Cultivate a quiet, soft speaking manner to such a degree that it is natural—not an oily smooth approach that is readily detected for what is a mere camouflage—for the suspect then merely tenses waiting for you to jump him. The quiet sympathetic manner carries the additional advantage in that the culprit feels he has unloaded a very burdensome problem from his conscience and has no feeling of antagonism towards the investigator, whereas harsher methods carry a somewhat violent reaction in the culprit when he is finally alone. There is a feeling of victor and vanquished, with him on the losing end and the natural feeling of animosity towards the party causing, as he sees it, his downfall.

The work of the arson investigator is not finished when he has collected all the facts and circumstances, or even when he has succeeded in obtaining a confession. A very important phase of the case is the correct marshalling of all the material factors for the presentation to the Crown Prosecutor or States Attorney, in other words, a brief. A most valuable time saver is the knowledge of how the particular prosecutor prepares his own brief. While in general format they follow the same lines, each prosecutor has a few individual mannerisms, and, if the investigator is prepared to present the brief to the prosecutor in the style that prosecutor uses himself, he can grasp the facts and circumstances much clearer and faster. They are usually very busy men and will appreciate the extra work you do in this regard. If, during the investigation, any factors or interviews were found in favor of the accused, make a special notation in the brief of what these factors are and what the interviews disclosed. The prosecutor is then prepared to handle the situation in whatever manner he decides and not be caught by some unexpected piece of evidence that leaves him helpless.

A book could be written on each step or phase of Arson Investigation. This writer has touched only lightly, the subjects that he believes should receive the study of Arson Investigators. Perhaps in the near future we may be favored with articles on specific subjects by qualified leaders in this field.