

MANUFACTURERS' AND CONTRACTORS' PUBLIC LIABILITY INSURANCE.

BY

G. F. MICHELbacher.

It has been my observation that the student who desires to secure membership in our Society, and who must, therefore, prepare himself for examination in the various forms of casualty insurance is handicapped by the lack of papers dealing with these subjects. I have thought that the preparation of such papers according to a prearranged formula and their publication in our *Proceedings* would be highly desirable. We have had no papers, for example, on automobile insurance, public liability insurance, personal accident and health insurance, and some of the other important forms of casualty insurance in which we examine prospective members.

The following discussion of manufacturers' and contractors' public liability insurance, while it is by no means a model paper, will, it is hoped, stimulate interest in the preparation of similar papers on such forms of casualty insurance as have not as yet received recognition in our publications.

POLICY COVERAGE.

The public liability policy insures against loss or expense incurred by reason of liability imposed by law for damages on account of bodily injuries, including death, accidentally suffered by the public. It does not contemplate the payment of damages to injured workmen, but deals exclusively with injuries to persons not employed by the assured; hence, the term public liability as distinguished from employers' liability or workmen's compensation. It does not contemplate payments for personal injuries to the assured, but does apply to injuries done to the persons of others, not his employees; hence, the distinction between personal accident insurance and public liability insurance. It should be further noted that property damage is not covered, but that the coverage is limited exclusively to bodily injuries.

Because of the complex nature of the public liability risk, it has

been necessary to create a variety of policy forms to provide coverage. By way of defining the scope of this paper, it might be well briefly to mention the forms of policies used in connection with this insurance and to point out the forms which will be discussed.

The various forms of policies may be classified first, according to the degree of liability assumed by the insurance carrier. This will result in two principal groups: one, containing those forms which provide insurance coverage for persons primarily liable for damages to the injured public, and a second, in which may be placed those forms providing coverage for persons who, by reason of their connection with an enterprise, may be contingently liable. A second classification will then distribute the various policy forms to these groups according to the nature of the business operations conducted by the assured, the premises which he controls or his interest in the enterprise under consideration.

Using this method, we may classify public liability policies as follows:

Group I:

- (a) Manufacturers. Issued to manufacturers of every description.
- (b) Contractors. Issued to general contractors, building contractors, telegraph and telephone companies, electric light and power and mining companies and to persons conducting operations not confined to manufacturing premises.
- (c) Owners, landlords or tenants. Issued to owners, landlords or tenants of premises (not manufacturers). This form is used for hotel, tenement and mercantile risks and risks of similar character.
- (d) Teams. Issued to those who operate draught animals, with or without vehicles.
- (e) Automobile. Issued to those who operate automobiles.
- (f) Elevators. Issued to those who maintain and operate elevators used for conveying passengers or freight, or both passengers and freight.
- (g) Theater. Issued to owners, lessees or tenants of theaters, public halls and other places of amusement.

Group II:

- (a) Contractors' Protective. Issued to contractors to provide protection for the contingent liability arising out

of claims for damages for injuries caused by a sub-contractor or his employees.

- (b) *Owners' Protective.* Issued to owners of buildings in the course of construction to provide for the contingent liability arising out of claims for damages for injuries caused either by the contractor, subcontractor or their employees.
- (c) *Landlords' Protective.* Issued to the owner or general lessee of a building, who has leased the entire premises to another and retains no control over them, to provide protection for the contingent liability arising out of the maintenance, use and operation of the building.

PREMIUM BASES.

For the sake of convenience in selling and underwriting this kind of insurance the premium bases, used in connection with the policy forms, vary considerably.

In general, it may be stated that the payroll basis is used in connection with manufacturers' and contractors' policies. That is to say, rates are quoted for each one hundred dollars of payroll as in the case of compensation or employers' liability insurance. As a matter of fact, these forms of coverage are usually written concurrently with compensation or employers' liability policies, and prior to the introduction of compensation, it was frequently the practice, in some instances, to cover the liability to employees and to the public in a single policy. One estimate of payroll by classifications serves the purpose of providing a basis for the calculation of the premium for both forms of coverage as each manual classification carries with it a rate for public liability as well as a rate for compensation or employers' liability, as the case may be. The general rule is subject to exceptions, however, in special cases where, for some reason or other, the payroll expenditure does not provide a satisfactory basis for premium computation. Thus, rates are quoted per one hundred square feet of surface for the operation and maintenance of advertising signs, per machine for the operation of automatic, slot or vending machines, and per day in the case of hod hoist installation, operation and removal. It is a universal rule that separate policies must be issued to cover the liability arising out of the maintenance, use and operation of teams or automobiles.

The premium basis in the case of the owners', landlords' and tenants' policy is in general the so-called "area and frontage" basis. That is to say, the rates are based upon each lineal foot of street frontage and each one hundred square feet of area. However, as in the case of manufacturers' and contractors' policies, this general rule is subject to exceptions whenever, for any reason, the area and frontage basis is impracticable. Thus, cemetery companies are written on the frontage basis exclusively. Dance halls and amusement halls of various descriptions, with the exception of theaters, are written on the gross receipt basis; that is, rates are quoted per one hundred dollars of gate or admission receipts. Churches are written at a flat charge per church, which varies with the population of the city in which the church is located. In connection with this form of coverage, it is the universal rule that elevators, if there are any, must be either specially rated in accordance with the rules governing elevator coverage or specifically excluded from the policy.

In the cases of teams, automobile and elevator policies, the premium basis is the individual team, automobile or elevator. Rates are quoted per team, per automobile or per elevator. Here again there are exceptions which are not of great importance; as, for example, the payroll basis or the named chauffeur basis in certain forms of automobile insurance.

Theater liability policies are issued to owners of theaters and motion picture halls. The premium basis is the seating capacity of the house. The unit is one seat, and rates are quoted per seat per annum.

So much for the policies classified under Group I.

In the cases of owners' and contractors' protective policies, the premium basis is "the total cost of all work, let or sublet, including all labor, material and equipment used or delivered for use in the execution of such work, whether furnished by the owner, the contractor or the subcontractor, also all allowances, bonuses or commissions made, paid or due." Thus the premium for owners' protective insurance, where the owner furnishes no material, tools or equipment, is based upon each one hundred dollars of the total cost of the work, let or sublet.

Landlords' protective policies correspond to both owners', landlords' and tenants' and elevator policies. The bases for rates are the same as the bases used for these allied forms, the rates being obtained by the use of a percentage differential.

The particular forms of policies which will be discussed in this paper are the manufacturers' and contractors' forms, which provide public liability coverage for manufacturers and contractors and which, in general, are written on the payroll basis.

HAZARDS.

Public liability hazards are more or less unique. They are not similar to the hazards of employers' liability or workmen's compensation insurance. It must be recognized that the probability of the occurrence of accidents will vary with the person exposed. In the case of employers' liability or workmen's compensation it is the assured's employee who may be injured; and in public liability it is a person who is not employed by the assured. The majority of manufacturing risks may be similarly rated for public liability coverage, although there are a great number of variations in the rates for either employers' liability or compensation coverage.

So far as the writer knows, no one has ever attempted to set down and classify public liability hazards. This would, indeed, be a task and, moreover, it seems certain that no comprehensive classification could be devised which would stand the test of providing a place for the numerous hazards which present themselves for consideration. As in compensation and liability insurance in general, the hazards of individual classifications must often be considered by themselves.

A knowledge of the hazards to be insured is, of course, absolutely indispensable and the following statement of some of the more striking public liability hazards has been attempted with a view to defining the subject in a general way. It should be remembered that the exposure is to the public and not to the employees of the assured, and that the hazards are those incidental to manufacturers' and contractors' public liability insurance.

With this in mind, it follows that the hazards are for the most part physical and largely independent of such factors as determine the operative procedure within the walls of plants. For example, it goes without saying that most public liability accidents are caused by persons coming in contact with property of the assured, or with physical conditions legally under his care or control and that there are no such hazards as the stamping press, emery wheel and set-screw hazards so much discussed in connection with employers' liability and compensation insurance.

An important public liability hazard may be designated as the *Street Hazard*. This hazard is found in connection with street work of all kinds, as for example, the laying of mains, paving, street and road making. It is also found in connection with work involving the use of streets, roads or highways, as in the case of live stock driving and in connection with work involving the exposure of persons passing through the streets, as, for example, construction work of many kinds on property adjacent to streets, electric light, telephone and telegraph work, involving the use of transmission wires, the construction and repair of bridges, the pruning, spraying, trimming and fumigating of shade trees, etc.

Closely allied to this hazard is the *Sidewalk Hazard*, which is somewhat similar in that the operations which produce it are in general the same as those which produce the Street Hazard, though limited in their effect to the area of the sidewalk. Thus, there are the classifications involving the construction, relaying and repair of sidewalks, the installation and repair of light prisms, window panes, awnings and signs, the painting of store fronts, bill posting and the general hazard of building operations on property fronting on and contiguous to walks used by the public. In addition to these, there is a distinct hazard in connection with the loading, unloading and piling of material. Safe moving, rigging, the installation of boilers, engines and machinery, with the incidental work of taking the material from the truck in the street into the building in which it is to be installed, expose the public on the sidewalk as do other unloading operations where for some reason or other it is necessary to pile lumber, bricks or other material on or near sidewalks. Partly because of the existence of this hazard, partly for other reasons, a special rate is provided for blacksmiths who lead or drive animals owned by customers to and from their shops.

The *Open Pit* or *Excavation Hazard* may next be mentioned. It is found as a sub-hazard under the headings "Street Hazard" and "Sidewalk Hazard" wherever for any reason it is necessary to dig trenches, pits or other excavations, but it is also found as a separate and distinct hazard in the case of excavating operations which are performed neither in the streets nor sidewalks. It is found, for example, in connection with tunnel and cesspool excavating, excavating for bridge foundations, retaining walls and bases of dams, and in quarrying, mining and clay digging. The par-

ticular risk here is the danger of persons falling into an unprotected opening. The degree of hazard varies directly with the exposure to public traffic and the area and depth of the excavation.

A fourth important hazard is the *Yard Hazard*. The yard, as distinguished from the buildings or other enclosed and roofed portions of a manufacturing plant, usually presents some exposure to the public. In some cases the yard may be well guarded by a substantial wall and by watchmen; in other cases a fence of some sort or other may mark the boundary lines, and there are still other cases where nothing but the piled material indicates the confines of the yard. Consequently there are many degrees of yard hazard in connection with the manufacturing classifications. Then there are classifications which may be said to contemplate a yard risk exclusively; as, for example, asphalt works, brick manufacturing, concrete block manufacturing, etc. In the case of manufacturing risks, the nature of the raw and finished products has much to do with the size of the yard used for storing and piling material. Thus, a large yard may be expected in connection with the operations contemplated by certain woodworking and metalworking classifications. Then there are hazards to which a person who has gained access to the yard may be exposed; as, for example, steam discharge pipes, uncovered vats, oily gutters, carelessly piled material, etc. Railroad connection with a plant, the extent of railway and switching facilities, the operation of cars in the yard and other transportation factors are also important.

Another hazard which it is difficult to name may be designated by the term *Salesroom Hazard*, a term which does not exactly describe it. This hazard is found wherever messengers, collectors, prospective purchasers, delivery men or the general public have access to a portion of the assured's premises or plant. The hazard is present in clothing manufacturing risks, film exchange risks, fruit packing risks and risks of similar character.

The *Warehouse Hazard* may be mentioned as closely analogous to the salesroom hazard. The hazard here is much the same and is due to the fact that persons other than employees of the assured deliver and take away merchandise of one sort or another. All warehousing risks present this hazard as well as similar classifications, such as express companies, forwarding agents, etc.

While the last two hazards apply strictly to persons who do not remain on the premises or near the working place any long period

of time, there is a hazard which may be called the *Fellow Worker Hazard*. This hazard arises by reason of the fact that employees of the assured often work with or in close proximity to the employees of other persons. This hazard is found particularly in connection with contracting operations where the employees of several individual contractors may be engaged in construction work at the same time. Masons, iron workers, marble and stone workers, tile workers, painters, gas, steam and hot water fitters, elevator constructors and carpenters—each trade under the supervision of a separate contractor—may all be at work at one time in a modern skyscraper. Then there are the cases of tallymen, factory cost systematizers, millwrights, boiler scalers, elevator repairmen, supervising architects, etc., each of which presents a similar hazard in some degree.

The use of explosives, corrosives and other dangerous substances gives rise to another hazard which may be termed the *Dangerous Substance Hazard*. The explosion hazard is found in connection with contracting classifications wherever explosives are used for blasting, for removing tree stumps and similar operations; also, in manufacturing classifications, as, for example, in the manufacture of celluloid, powder, fuses, starch and glucose. The general hazard of dangerous substances to which the public is exposed is found in the use of acids, hot liquids and molten metal, in manufacturing plants and elsewhere. Though not exactly comparable with other hazards classed under this heading, the fact may be mentioned that separate public liability rates are provided for the inclusion and exclusion of the gas explosion, inhalation and asphyxiation hazards in connection with the operation of gas works.

In addition to these hazards, there is a miscellaneous class into which all the remaining physical hazards may be thrown. The *Collision Hazard* found in connection with the operation of barges, lighters, and other vessels would be thrown into this class, as would the hazard arising from salesmen, messengers and collectors who do not use vehicles, as, for example, the hazard arising from the transportation of merchandise through the streets by messengers.

The *Catastrophe Hazard* in public liability insurance is found largely in connection with contracting, transportation and amusement-hall risks, although there is a possibility of serious accidents in connection with the operations incidental to certain manufacturing classifications. In this discussion, we are not interested in

transportation and amusement-hall risks, but it should be pointed out that a sufficient catastrophe hazard remains which requires our attention. There are, for example, such hazards as the collapse of buildings in the course of construction, serious explosions and others which should be noted.

In the moral-hazard column, the hazards are as intangible as moral hazards usually are, but it may be said that there are not so many of them, nor do they play the important rôle they play in connection with other forms of insurance. The moral hazard of fraud and deception on the part of the assured is not important, but in its place there is substituted a similar hazard on the part of claimants. Then there are the usual hazards of carelessness, negligence, mismanagement or poor management and the hazards incidental to the legal procedure found in damage insurance of all kinds. But these hazards, as stated above, are intangible; they cannot be weighed and measured for the individual classification. Their effect, if any, is reflected in the experience and enters into the rates in this manner. There is no particular loading which can be pointed to as a moral-hazard loading as in the case of compensation insurance, where a rate may be discounted by the application of a merit-rating plan.

HISTORY OF RATE-MAKING.

In the beginning rates for manufacturers' and contractors' public liability insurance were judgment rates; that is to say, they depended largely upon the personal opinion of underwriters as to what the public-liability hazard in connection with each classification was worth.

If the records of the National Workmen's Compensation Service Bureau are to be trusted as representative, there was no great volume of experience available for this class of insurance until some time in the 1900's. One compilation of experience shows that the total payroll exposure in 1889 for all classifications was less than \$500,000 and that this volume, while it increased rapidly, did not exceed \$350,000,000 by 1900. It follows, therefore, that the judgment method of rate determination was followed until a comparatively recent date.

There does not seem to have been any formula by which the early rates were derived, except that rates for the manufacturing clas-

sifications evidently bore some rough relationship to the corresponding employers' liability rates. It is evident that some method was followed of grouping manufacturing classifications by employers' liability rates and then determining the public liability rate for each group by a judgment of the relative hazards of the two forms of coverage. There seems to have been a more careful use of judgment in the establishment of rates for the contracting classifications, but without the aid of experience, it is certain that this judgment was in some measure influenced by the corresponding employers' liability rates.

Three extensive compilations of experience by classifications have been made by the Bureau. The first of these covered policy years 1889 to 1900 and was brought down to January 1, 1903; the second, policy years 1889 to 1903, brought down to December 31, 1906, and the last and most recent, policy years 1908 to 1912, brought down to June 30, 1914. With the accumulation of experience to aid judgment, the establishment of rates has become more and more a matter of the scientific application of underwriting judgment. This is distinctly shown by the fact that the additional experience available for the recent revision of rates corroborated in general the rates for contracting classifications, although it did point out many discrepancies in the manufacturers' classifications, a result to be expected, for reasons to be stated later.

The latest revision of rates for Manufacturers' and Contractors' Public Liability Insurance was undertaken in 1915. The experience then available produced a payroll exposure for all classifications of approximately \$2,290,000,000.

DIFFICULTIES IN RATE-MAKING.

The great volume of public liability experience did not eliminate certain difficulties which are incident to a discussion of public-liability rates. In the first place, it should be noted that approximately half the volume of this experience is concentrated in classifications rated \$.05 and under. Thus, it happens that large exposures for individual manufacturing classifications fail to produce losses and afford no guide to the underwriters' judgment. This is true because of the low degree of hazard presented by these classifications. It often happens that a low-rated risk will continue to produce no losses for years and will then produce an accident

which will cost from \$50 to \$5,000. The law of averages is working as surely as it works, for example, in connection with compensation insurance, but it requires a considerable period of time for its results to be ascertained and its law determined and in this period of years the exposure increases until a considerable volume has been accumulated.

An exposure of \$100,000,000 should be available for the majority of manufacturing classifications before the experience for the individual classification can be considered at all dependable, and it is likely that a great part of this exposure will be accumulated without losses. This fact makes it necessary for the underwriter to resort to the grouping method of determining rates. Thereby the use of judgment is limited to a discussion of the analogy of hazard between classifications, and the experience for the group, when completed, serves as a basis for the rates for all classifications in the group.

With no experience indication for the individual classification, the underwriter, in forming his group, may overlook certain inconsistencies which become evident as soon as additional experience has been accumulated. It, therefore, happens that, with the accumulation of experience, the make-up of the groups is considerably changed. For example, at the time of the revision of rates, preceding the last, it was evidently decided that no metal-working risks should be placed in the two lowest rated groups. This decision was based upon judgment. The accumulated experience which the underwriters had to assist them in the last revision of rates indicated that this decision was not justified and a redistribution of the metal-working classifications was accordingly made.

This, then, is the first difficulty: The fact that large exposures for individual classifications produce no losses causes underwriters to rely entirely upon their own judgment in certain cases, this exercise of judgment being limited to a determination of the analogy of hazard and resulting in the formation of groups of analogous classifications. With a large number of classifications to handle, this method, no matter how carefully followed, must necessarily produce some inconsistencies. The number of these inconsistencies will vary, of course, with the volume of experience for individual classifications and some day will disappear entirely by the process of constant correction and closer approximation to the truth.

A second difficulty, which will also disappear in time, has to do

with the fact that there has not always been a uniform manual of public liability classifications. This fact seriously interferes with the use of old experience in the determination of rates for the present classifications. Practically simultaneously with the introduction of workmen's compensation laws came the Basic Manual with its uniform series of classifications for compensation and public liability insurance. This fact and the further fact that compensation insurance matures with some degree of rapidity has enabled casualty companies to accumulate a considerable volume of compensation experience for classifications which always have been worded in substantially the same manner. To be sure, public-liability insurance was placed on this same basis, but, whereas compensation was an entirely new line, public liability was an old line and the change in classifications has made it difficult to combine the new experience for many classifications with the old experience for classifications which, while they may express practically the same hazard, differ in some particulars, so that the combined experience would not give a true indication. This does not necessarily mean that all the old experience must be discarded. It is still possible to use it as a guide. For example, it is possible to use the experience for classifications "Machine Shop—with or without foundry" and "Machine Shop—including outside work" as a guide in the discussion of rates for classifications "Machine Shop—with foundry" and "Machine Shop—without foundry" but it is impossible to combine this experience with the experience for either of the present classifications. We, therefore, have been forced to throw overboard a lot of valuable information and to start our accumulation of experience all over again with the classifications in the new manual as a basis. This may be inconvenient at present, but the advantage of having a uniform series of classifications far outweighs this temporary inconvenience and we are certain to accumulate a more dependable volume of experience in a comparatively short period of time under this plan.

The third difficulty which may or may not be of vital importance arises from the fact that conditions may change so radically while the experience is maturing that the experience available for a revision of the manual may not be adequate to meet new conditions. Liability claims are slow to mature. There is a considerable delay in the settlement of cases. It has been stated that "the average time required to effect a settlement through legal procedure is

about five years" in California and there does not seem to be any reason why cases of this character should require a longer period of time for their adjudication in California than elsewhere. During this period which must elapse before the experience can be considered dependable, there will be some tendency toward reforms in process, methods of conducting operations, etc., which must not be overlooked.

RATES.

There are two series of rates for this class of coverage: one for all states, excluding certain large cities; the other for the large cities excluded from the first territory.

The interpretation of laws relating to damages for bodily injuries, the attitude of juries and the general moral hazard do not differ enough to require the use of differentials for states or groups of states, as in the case of workmen's compensation insurance.

The reason for a differential in the case of large cities is found in two hazards which have been explained, viz., the street and sidewalk hazards. In connection with classifications presenting a considerable degree of exposure to either of these hazards, a differential as between cities and other territory can be justified both by experience and by general reasoning. For example, general reasoning would lead to the statement that these hazards vary directly with traffic density, which in turn varies with population density, width of streets, traffic regulations and similar factors. From this statement, it is merely a step to the assertion that these hazards vary directly with population density and consequently with the population of towns and cities. The experience then helps to determine the degree to which these hazards vary with population density. No differentials have been applied where experience either for the individual classification or for the group of analogous classifications does not justify this method of treatment. It goes without saying that the classifications where differential rates have been established are almost exclusively contracting classifications.

The formula by which rates are determined is a simple one, viz.,

$$\text{Rate} = 2 \times \text{Pure Premium.}$$

There never has been an attempt made to analyze this formula as the formula for compensation rates has been analyzed. It is used in all lines of public liability insurance and, from all appearances, has given complete satisfaction.

The number of rate grades or differences in hazard in this form of insurance is 26 as compared with 115 in the case of compensation insurance. In other words, there are 26 possible hazard groups. In degree of hazard, the manufacturing classifications come first, so that the seven lowest rated groups contain nothing but manufacturing classifications, the majority of which are concentrated here, although others are distributed throughout the entire series. This concentration of manufacturing classifications in seven of the twenty-six groups accounts for the fact that the greater proportion of payroll is found in the lower rated groups. The contracting classifications, in a large measure, fill up the remaining groups. The variation in rates for the groups composed strictly of manufacturing classifications is from \$.02 to \$.20, whereas the variation in rates for the remaining groups is from \$.25 to \$12.50.

The method of rating has been fairly well described. The exposure is payroll. The classifications, particularly the manufacturing classifications, are grouped according to analogy of hazard and in this process the experience for individual classifications is used to supplement underwriting judgment. Then, the rate for all classifications in the group is determined with reference to the indicated pure premium for the group. Much the same procedure is followed in the case of contracting classifications, although there are several groups containing but one or two classifications in which experience and judgment are applied to the individual classification. In this way, one series of rates is determined which applies to the country as a whole. Wherever a differential rate is necessary, the experience furnishes the basis for the determination of this differential, although the grouping or analogy method is used to some extent in this connection as well as in the determination of rates for the country at large. That is to say, there may be a considerable volume of experience for one classification which justifies a differential. For an analogous classification there is no considerable volume of experience, but the differential is extended to this classification because of the analogy of hazard.

GENERAL TREND OF THE COST OF THIS COVERAGE.

Some years ago there was much talk of the increasing cost of employers' liability insurance. Today we hear the same talk with reference to workmen's compensation insurance. Actuarial com-

mittees have from time to time studied these problems and it is certain that today the "increasing cost" factor in compensation insurance is a most important item to be considered in producing rates for this form of insurance. The question naturally arises in connection with other forms of insurance: Is the cost increasing or decreasing, or is it standing still? And the final rate often depends upon the answer to this question.

Public liability insurance, as before stated, was formerly considered so closely analogous to employers' liability insurance that one policy was frequently issued to cover both hazards and the rates for public liability were determined with scrupulous regard for the corresponding rates for employers' liability. This might lead one to suspect that if the opinion of underwriters of those times was borne out by the experience, there must have been a decided tendency for the public liability experience to grow worse as the cost of employers' liability increased. This does not seem to have been the case, however. The statement of public liability experience for the years 1889 to 1903, prepared by the Bureau, indicates beyond a doubt that, while the cost may have fluctuated considerably for years down to and including 1898, there was a decided downward tendency following that year. This tendency is corroborated by additional experience for the years 1908 to 1912 which indicates the following interesting results, using the pure premium for the year 1908 as a basis:

Year.	Payroll Exposure.	Cost Factor.
1908	\$308,146,332	100.0
1909	400,857,471	94.5
1910	532,589,156	96.5
1911	476,226,147	98.0
1912	571,719,514	89.0
Total all years	\$2,289,538,620	95.5

Thus it would seem that there was no sympathetic relationship between the cost of public liability and the cost of employers' liability. Such arguments as the arguments of increasing cost by reason of changing conditions, a general speeding up of industry, innovations of one sort and another, which might revolutionize methods of construction and manufacturing, are not supported by the experience in this line of business prior to the general introduction of compensation laws.

Today, however, there are better arguments upon which to base

a prediction that the cost of public liability will increase in the future. There are as yet no figures to prove or disprove these arguments, but they are interesting enough to warrant mention here.

These arguments have to do with the possible effect of the introduction of workmen's compensation laws. We have seen that the causes which produced an increase in the cost of employers' liability evidently did not have any effect on the cost of public liability. What is the situation today when compensation has largely replaced employers' liability? What effect, if any, can the introduction of compensation have upon the cost of public liability?

There seem to be several possible reasons why the introduction of workmen's compensation laws should affect the cost of public liability.

In the first place, many of the reactions of compensation laws upon workmen will be felt in connection with public liability insurance. There are, for example, the increasing tendency to malingering which may cause excessive and fraudulent claims to be presented, the ever-increasing tendency to claim something for each trivial injury, the growing knowledge that personal injuries may be used as a basis for claims for damages as well as compensation, etc. These same influences affect persons who are not workers; but even though this were not the case, the fact that most of the persons who are exposed to public hazards work and have become thoroughly familiar with the theory and purpose of workmen's compensation laws and incidentally with related laws bearing on the subject of personal injury, must give some weight to this argument. The greater percentage of persons who were ignorant of their legal rights under employers' liability have been educated to know their rights in the case of compensable injuries. It is to be expected that the fact that compensation may be collected for one class of injury will at least open the minds of workers to the possibility that there is some payment for every class of bodily injury suffered by reason of accident.

In the second place, the effect of workmen's compensation laws upon certain members of the legal profession indirectly has a bearing on this question. The Casualty and Surety Section of the *Insurance Field* for April 13, 1916, contained the following interesting note under the heading "Ambulance Chasing":

"Law suits against automobile drivers in accident cases, which

have been rapidly increasing in Ohio, are attributed to the operation of the workmen's compensation law in that State. The situation is accounted for in this way: Lawyers who make a specialty of accident cases formerly were so occupied with suits against railroads, street car companies and manufacturing plants that they had not time to handle cases against automobile owners, but as the state law now takes care of all accidents in industrial enterprises, there is so little opportunity for suits that a majority of lawyers have diverted their attention from industrial cases to accidents due to automobile hazard." Needless to say, this diversion of effort from the industrial accident field has not caused this class of the legal profession to limit their energies to automobile accidents. It is certain that the accident field in general, outside the forbidden territory, has become, in large measure, the stamping ground for these members of the profession and that this field is being tilled intensively for possible damage suits.

In the third place, there is the effect of the "Safety First" movement which has attended the introduction of compensation laws. The effect here may or may not largely neutralize the effect of the other factors. While this movement has been devoted largely to conditions in industry, a decided tendency has manifested itself to extend this doctrine to accidents in general. Safety sheds, safety stations, safety signs, safety lectures for children as well as for parents, safety articles concerning accidents and their prevention and the general program of making persons think and live safety must have had something to do with reducing the frequency of public accidents. We hear the cry "Watch your step." We see red flags and other signals of danger where there is probability of an accident. Dangerous places are protected or fenced off; a man stands ready to warn you away from a dangerous position, and safety devices have been installed and used wherever possible. Such terms as anti-skid, anti-slip, non-inflammable, safety this and safety that are taking on a new meaning. They are becoming catch words and that proves that the safety idea is finally reaching the people who can prevent public accidents.

But this same "Safety First" idea may cause a greater loss after the occurrence of an accident. The public at large and juries in particular cannot continue to look upon preventable accidents lightly. A preventable accident may become a crime and a reason for an excessive award and as we learn more and more about the

meaning of the word "preventable" we may find a factor of increasing cost in the legal procedure incidental to damage suits. Here again the increasing cost may or may not make itself felt. It is merely a possibility.

Just what the net effect of these factors may be we have no way of knowing. It is just possible that the present general level of cost will continue without a material tendency either upwards or downwards. It will be interesting to watch the experience for some evidence of the truth of these arguments.