## Automobile Rating Reduced to Accurate Scientific Basis

(By R. H. Goodwin)

The following article on the specific Rating of Automobile hazards will no doubt be of interest to many of our readers. Mr. Goodwin the writer of this article, published in the Insurance Field, is probably more familiar with the system of rating automobiles than any other man in America.

There was a day when the automobile underwriter guessed at a rate, struck the premium down into his pocket and prayed for a balance on the right side of the ledger. That day has passed and with it went gambling as to adequate, equitable automobile rates.

Adoption of the merit system of rating by the National Automobile Underwriters' Conference marked the dawn of a new era in automobile rate making. Tempered with a little common sense and the wisdom that comes of experience, the new plan contemplates scientific analysis of the hazard assumed with credit where credit is due and penalties where necessary. The range of hazards which must be taken into consideration is long; the new schedules may not be perfect in every detail. But a great forward step toward the goal desired has been taken and application of the merit rating system will bring to the surface for correction any defects which may exist.

There are reasons why the new plan should be welcomed by the agent, the automobile owner, the manufacturer and the underwriter. These are the persons primarily interested in rate changes, both as to purposes and effects. It is they who want to know just what is contemplated in the new system whereby automobile insurance rates are predicated upon the principle of merit.

The old method of grouping automobiles according to the selling price and assigning a rate class to all machines selling at the same price took no cognizance of the different features of construction and design found in various makes and models. These physical features of course have an appreciable effect upon the hazard and a rating plan which analytically measures this variation in hazard is not only sound but easily defensible. In that the new rates measure the inherent physical hazard of an automobile they directly reflect to what extent the manufacturer employs recognized standards of construction at his factory.

Responsibility for the new automobile fire rates, for instance, rests squarely upon the manufacturer. It is self evident, of course, that the fire hazard of a motor vehicle is just as great in South Dakota as in Jacksonville and that the likelihood of fire is just the same, whether a dimpled debutante or a cross eyed Chinaman is at the steering wheel. What

the fire hazard does depend upon is the manner in which the machine's fuel is stored, upon the fuel feed system, upon the fuel line and its fittings, the carburetion, the electrical equipment, the exhaust system, the mud pan and the general workmanalup of the machine as indicated by its price. It is these things upon which the new fire rates are predicated.

Of course there are various features to be considered in connection with the factors contributing to the fire hazard. Electrical equipment is the chief consideration with a great deal depending upon the system of wiring and the materials employed. The storage of gasoline also is an important factor, with the capacity of the tank and its location counting a great deal. A range of credits is given that varies from the maximum number of points when the tank is located at the back of the automobile to a minimum credit where the tank is under the hood and must be filled by raising the hood. In case the tank is under the front seat or is fil'd from the dashboard, the rating credit varies.

In the analytic system all features of a machine are good; some features are "better" and still other are "best." In other words, the most hazardous equipment is taken as the standard rather than the least hazardous. This viewpoint was agreed to in order to satisfy certain automobile manufacturers who feared to have the various features of equipment rated as 'good, bad and impossible." Three fuel feed systems, for instance, are found in various makes of automobiles-the vacuum feed, the air pressure feed and the direct gravity feed. In the new rates the direct gravity system is allowed so many credits, the air pressure system is allowed still more credits and the vacuum system gets the maximum number of credit points.

Automobile manufacturers of course have been supplied with the analytical schedule with which underwriters now are measuring inherent hazards and it is to be expected that automobile makers will hereafter exert every effort to build safer machines. It is to the manufacturer's interest to get for his make the highest possible rating and changes in design hereafter will be made with a view to reducing the physical hazard. Automobile fire rates will be reduced just as rapidly as physical hazards are, or increased if increases are warranted.

## New System is Elastic.

The new rating system is very elastic in this respect. Suppose that the product of some manufacturer has been a high grade class of automobile for a number of years, preferentially rated, and that at some later period the output of his factory represents an inferior grade; the reprint pages or supplemental addenda to the classification manual