sis, cross classifications might be made, e g , between hazardous conditions and accident type, but in this instance the majority of the accidents were falls, and it was necessary to determine only the principal causes of the accidents

Methods of tabulating In the preceding analysis, the tabulation was accomplished by hand sorting and tallying For analyzing a small number of reports, this method is the most efficient The principal advantage is that the original records are being used, and all the information is available should reference to it become necessary

For analyzing a larger number of reports, and particularly to facilitate filing the reports, Keysort cards may be used (see Fig 12-2) This card is similar to the original report in that all information can be shown on the card In addition, the code numbers assigned the various facts may be punched in the cards so that they can be sorted by a special needle Sorting is a hand operation

A third method of tabulation, which is fully mechanical, employs punched card tabulating equipment (see Fig 12-3) With this method, the code numbers only are punched into cards, which can then be quickly and accurately rearranged into various groups This method has maximum usefulness when the number of reports is very large, when many classifications and cross classifications will be required, or when tabulation of numerical data, such as days lost, will be made

Using the analysis

Of course, merely obtaining the information will not prevent recurrence of the accidents The conditions which contributed to the accidents must be corrected As an example, the information obtained from the ladder analysis (Fig 12-1) emphasizes the need for making regular inspections of ladders and for removing from service or repairing those ladders having defects

The fact that most of the accidents resulted from improper use of the ladders indicates the even more important need for employee training in the use of this equipment The very definite and specific causes shown in Fig 12-1 indicate exactly what points must be stressed in a training program The irrefutable statistical evidence also furnishes data for posters and other safety materials which the safety director will want to include in an all-out assault on ladder accidents

The causes of the ladder accidents have been ascertained in terms so definite that guesswork can be completely supplanted by direct, positive action, which can have no other result than a marked decrease in the frequency of this kind of accident

TABLE 12-B
PREDETERMINED AVERAGE COSTS

Class of Accident	*Number of Accidents Reported*	*Average Uninsured Cost*
Class 1	20	$ 60 00
Class 2	30	19 30
Class 3	50	2 80
Class 4	20	121 30

Estimating Accident Costs*

This discussion concerns the elements of cost most likely to result from a work accident and presents a method whereby an organization can obtain an accurate estimate of the total costs of its work accidents

Reliable cost information is a basis for decisions upon which efficiency and profit depend Even in so obviously desirable an activity as accident prevention, some proposed measures must be accepted or rejected on the basis of their probable effect on profits

Although most executives want to make their company a safe place in which to work, they also feel a responsibility for running their business profitably Consequently, they may be reluctant to spend money for accident prevention unless they can see a prospect for saving at least as much as they spend *Without information on the cost of accidents, it is practically impossible to estimate the savings which are effected through expenditures for accident prevention*

Annual reports expressed in terms of dollar

*This procedure for estimating costs was developed by Rollin H Simonds, Ph D , Professor, Michigan State College, under the direction of the Statistics Division, National Safety Council