1.

Scientific Management Movement : F. W. Taylor and Henri Fayol.

The scientific management movement started with the growth of industrialism and factory system in the United States. In the early days of capitalism, the typical capitalist was himself his own manager i.e. he owned his own factory and managed his own enterprise.

However, as a result of industrial revolution, there was a growth of large scale public corporations and technological development of modern industry. As a result the functions of the management have become more distinctive and the capitalism who formerly performed the function of the management have withdrew from management capital.

During the nineteenth century conditions of work in the factories were totally unplanned and management was not competent enough to impart knowledge to the workers about the techniques of work. At this time, Frederick Taylor, on the basis of his experience, formulated a systematic theory of scientific management to be applied in different

industrial concern for higher industrial efficiency. Taylor pointed out that managers would have to develop a broader, more comprehensive view in order to see their job as incorporating the elements of planning, organising and controlling.

Fredesick Winslow Taylor :- Frederick Taylor was born at Boston, USA in 1856. As a student he was keen on taking up a career in law but his physician had advised him against his further studies because of his weak vision.

He started his career as an apprentice in Enterprise Hydrolic work in Philadelphia and served there for four years.. In 1878 he joined the Midvale steel company as a labour and by virtue of his high intelligence, he rose to the position of the chief Engineer later for three years he worked as General Manager in manufacturing ~~company~~ investment company in Philadelphia. it was in this establishment that Taylor propounded the concept of scientific Management. The last fourteen years of his life were spent towards improving upon the techniques of

Scientific Management.

During his stay as an engineer in a industry he realised that the attitude of the workers towards their work as well as of management towards the workers was not satisfactory. He took several steps in this regard.

In the latter part of 19th century when Industrial Revolution was in its stage of maturity, American business and industry were substantially expanding and there were giving rise to a new managerial class.

The practice of management began to change from simple day to day problem solving approach to a more comprehensive and integrated approach, to encounter multiple managerial problems which were not faced previously.

Prominent economist such as Henry R. Towne and Henry Metcalfe expressed their concern on emerging problem of management, Towne wrote a paper entitled "The Engineer as a Economist". Perhaps this very paper inspired Frederick W. Taylor to devote his attention to the field of scientific management.

The study of management, according to Taylor, included a composite collection of all facts and accounts (wages, supplies and expenses) as also the important factor of executive ability.

Taylors first paper in the field of management was "A Piece Rate System". Although the paper was outstanding it had a narrow focus, as it discussed only the principle used for wage payment. Before Taylor, the rule of Thumb was applied but he suggested a new system consisting of three parts.

(a) Observation and analysis of work through time study to set the rate of standard.

(b) a differential rate system of piece work.

(c) Paying men and not position.

Later in 1903, Taylor presented another paper on "Shop Management". In this paper Taylor spelt out certain criteria for organising the workshop. He argued that there should be certain objective which a management as well as employ should follow. The point he gave in respect of shop management are.

(a) The goal of good management should be either higher productivity or lower unit cost; to achieve this goal management must pay high wages. Only then increased industrial efficiency can be achieved.

(b) Management have to apply scientific methods of research and experiment to the management problems.

(c) Standardization of working condition by scientifically placing workers on job is crucially important.

(d) In order to increase workers output they should be imparted scientific training.

(e) Relations between the management and workers should be cordial.

Inspite of containing a perspective analysis of the problems of management, Taylor's paper failed to arose the imaginations and interests of the audience.

However in 1906, Taylor wrote another paper entitled 'On the Art of Cutting Metals'. This paper was the

Taylor believed that scientific methods should be applied in select workers, in determing their jobs and in creating an understanding betwe the management and the workers that would improve the overall indus efficiency.

Taylor observed that if the outp of the worker achieved a level of excellence, the worker should be rewarded; But if he failed to increasing his output, penalty should be imposed on him.

Taylors concept of management involved a 'mental revolution' both on the part of the management and the workers.

He further observed that management neglected its function and shifted its burden to the labour while keeping for itself minor responsibilities. In this context he advised that over 50 per cent of ~~work~~ labours work should be assume by management. The management should undertake functions for which it was best suited i.e. planning, Organization, controlling,

Accomplish = to finish entirely
to fulfil

9

and determining the method of work.

Initially Taylor listed four principles as a guide for the best type of management. These were:

1. Daily defined task :- Each man in the organisation, high or low, should have clearly defined task befor ~~their~~ him everyday so that he may work with a set aim.
2. Standardized working conditions: The working condition should be standardized in such a way that the worker and management may accomplish their tasks in an environment of certainly.
3. Reward for success: The workman should be given high pay if he accomplish his task succesfully and efficiently.
4. Penalty for failure: If the worker fails to achieve the task entrusted to him he should be prepared for penalty