In the Year 1914 —

Industry began to give more consideration to the application of mechanical methods of transporting materials within the plant and to the conservation and proper application of labor.

The experience gained since the year 1916, when America was called upon to speed up production with a shortage of labor, has shown the importance and economy of conserving human effort and applying it to more productive work.

Stored-up labor in the form of mechanical handling equipment will do the work better, in less time and at less expense.

For nearly half a century it has been the privilege of Jeffrey Engineers, pioneers in planning and analyzing material handling methods, to co-operate with engineers and others responsible for results in the Mine, Mill and Factory.

Their continued efforts have resulted in the development of efficient types of equipment to meet practically any handling purposes.

It is significant that Industrial Leaders, alert to utilize every factor that will contribute to the elimination of waste and help to increase profits, are turning to Jeffrey engineers for a solution of their mechanical handling problems.

Jeffrey Standard Equipment includes a complete line of Elevators, Conveyors; Portable Loaders and Unloaders; Coal and Ashes Handling Machinery for Power Plants; Crushers; Pulverizers, shredders; Coal Cutters; Pit Car Loaders; Locomotives; Tipple Equipment; Ventilating Fans, etc.

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INDUSTRIAL LIGHTING CODES.

In order to protect workers from accidents and eye sight damage, no less than five states, New York, New Jersey, Pennsylvania, Wisconsin and Oregon have now in force lighting codes for industrial establishments. Other states are now considering the adoption of an industrial lighting code, and it seems only a question of time when all the states will adopt such a code.

Proper lighting of work places is not only of great importance to the operators working therein, directly affecting their safety and eyesight, but it is a factor of equal importance to the employer, as quality and quantity of output are deciding factors of profit or loss in the operation of the plant.

The introduction to the Wisconsin code reads as follows: "Insufficient and improperly applied illumination is a prolific cause of industrial accidents. In the past few years numerous investigators, studying the cause of accidents, have found that the accident rate in plants with poor lighting is higher than similar plants which are well illuminated. Factories which have installed approved lighting have experienced reductions in their accidents which are very gratifying.

"Of even greater importance, poor lighting impairs vision. Because diminution of eyesight from this cause is gradual, it may take the individual years to become aware of it.

"This makes it all the more important to guard against the insidious effects of dim illumination, of glaring light sources shining in the eyes, of flickering light, of sharp shadows, of glare reflected from polished parts of work. To conserve the eyesight of the working class is a distinct economic gain to the state, but regardless of that, humanitarian considerations demand it.

"Finally, inadequate illumination decreases the production of the industries of the state, and to that extent, the wealth of its people. Factory managers who have installed improved illumination, are unanimous in the conviction that better lighting increases production and decreases spoilage."

The Wisconsin Commission has adopted a rule to the effect that, "diffusive or refractive window glass shall be used for the purpose of improving day light conditions or for the avoidance of eye strain, wherever the location of the work is such that the worker must face large window areas, through which excessively bright light may at times enter the building."

A glass is now available which meets the above requirements. It properly diffuses the light and prevents sun glare passing into the building and is known as Factrolite.

Engineers of to-day are making a thorough study of illumination, so that they may be able to plan and lay out industrial plants, to scientifically increase their efficiency to as near the maximum as possible. This accomplished the engineer is not only doing something worth while for his employer, but is doing quite as much for himself by coming into prominence with modern ideas.

If you are interested in the distribution of light through Factrolite, we will send you a copy of Laboratory Report—"Factrolited."

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BAILEY MULTI-POINTER GAGES are made with any number of pointers to fit each installation. Indicate Pressure, Temperature, Rate of Flow, Draft, Speed, etc.

BAILEY METERS FOR COAL AND GRANULAR MATERIALS measure coal, crushed ore and other granular materials in large quantities.

BAILEY FLUID METERS record and integrate the flow of steam or water at any pressure or temperature. The meters may be supplied with pressure recorders, temperature recorders or both.

BAILEY GAS METERS record and integrate the flow of low or high pressure gas or air at any temperature. Special meters built for measurement of chemically active gases.

BAILEY GRAVITY RECORDERS FOR LIQUIDS record the true specific gravity of a flowing sample on a 12 inch circular chart.

OTHER TYPES of Meters as well as recording and indicating Gages are made for different purposes, so that nearly any problem in connection with the metering of fluids can be handled.

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College athletic teams illustrate forcibly one truth—men achieve by inspiration. The bleachers' cry of "Hold 'em; Hold 'em!" has kept many a goal line uncrossed. "Touchdown! Touchdown!" has scored countless victories.

In an engineering organization like Westinghouse, this inspiration comes from engineering executives—men who correlate, organize, administrate, and inspire. They are engineers first, but engineers with the power to enlist the best of other men.

Many derived their own first inspiration from the Founder, George Westinghouse himself. He took a contract for electrifying the New Haven Railroad, for example, before the apparatus had even been designed.

"Now I've dropped you into the middle of the pond", he told his engineers. "It's up to you to swim out".

There was plenty of swimming—but Westinghouse knew his swimmers.

As has been true since organization began, the demand for men who can develop into leaders is far, far short of the supply. Westinghouse welcomes them. All industry welcomes them. Organizations lead because men, in turn, lead them.

This advertisement is seventh in a vocational series, outlining the fields for engineering achievement in the Westinghouse organization. A copy of the entire series will be sent to anyone requesting it.
Stage directions for this scene from William Vaughn Moody's play, "The Great Divide," call for a woman's muffled scream, a pistol shot, and the crash of breaking furniture. The microphone on the right sends them all to your home.

An Exciting Evening

Here are four of the WGY Players (the world's first radio dramatic company) at a thrilling climax that almost turns sound into sight.

Tune in, some evening, on one of their productions. You will be surprised to find how readily your imagination will supply stage and setting.