EUREKA ELECTRIC COMPANY.

The Eureka Electric Company, having just located in its new factory at 143-145 South Clinton street, Chicago, is just preparing to place upon the market and add to its already large line of telephonic exchange appliances some special and interesting apparatus containing special features and points of

FIG. 1.

merit not found in any of its competitors' apparatus.

A few cuts shown herewith will more clearly convey to the reader a better idea of the company's later apparatus.

Fig. 1 shows its latest condensed type of telephone — No. 97. This instrument is built for

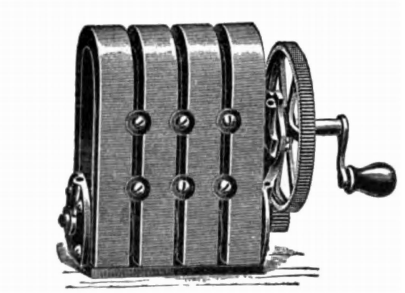

FIG. 2.

either central energy work or magneto systems. Where the instrument is built for magneto work the generator shown in Fig. 2 is employed. This machine has an extra heavy quantity output and in every case is to be found efficient and reliable. The general specifications of the generator are of the highest grade of tungsten steel, which fact is sufficient

FIG. 3.

endorsement of the merit and quality of the generator, and at the same time the buyer is assured of a machine that will retain its magnetism and be in every way as efficient and reliable after years of service as when purchased.

A general inside view of the receiver is shown in Fig. 3. The same quality of magnet steel is used in the permanent

magnet of the receiver as is mentioned above in the generator. These magnets are capable of lifting easily a 2-pound weight, and the cut shown in Fig. 4 will give a general idea of the strength of the magnets and other special features of the receiver, the company furnishing either its No. 18, No. 19 or new No. 20 on any of its different types of telephones at the request of the purchaser. All of these three receivers contain special points of merit and will be found in every way superior instruments.

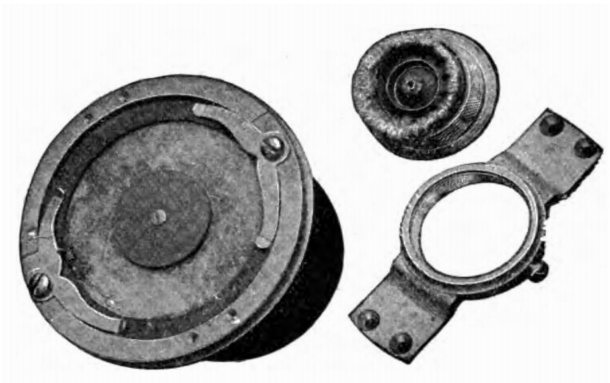

FIG. 5.

The transmitter employed and furnished on all of the Eureka Company's well-known telephones is that as shown in Fig. 5. This instrument is in resistance the highest of any telephone transmitter on the market; has a resistance of 80 ohms. Its special features are its special construction and its adjustability, it being the only adjustable transmitter in the Independent field. A correct view of the construction can be observed from the cut.

The fact that this transmitter is in resistance the highest of any on the market in the Independent field makes it specially adaptable for service in central energy systems and for magnetic work with local battery at the instruments, it being so high in resistance the consumption of battery power is very nominal, which means an economical instrument in service and superior results under a very high battery power, as the transmitter is capable of standing anywhere from 6 to 10 cells where the line resistance is very high, caused either by bad joints and other matters of poor construction, or where it be desired to get excellent results without the instrument taking any local noises.

FIG. 6.

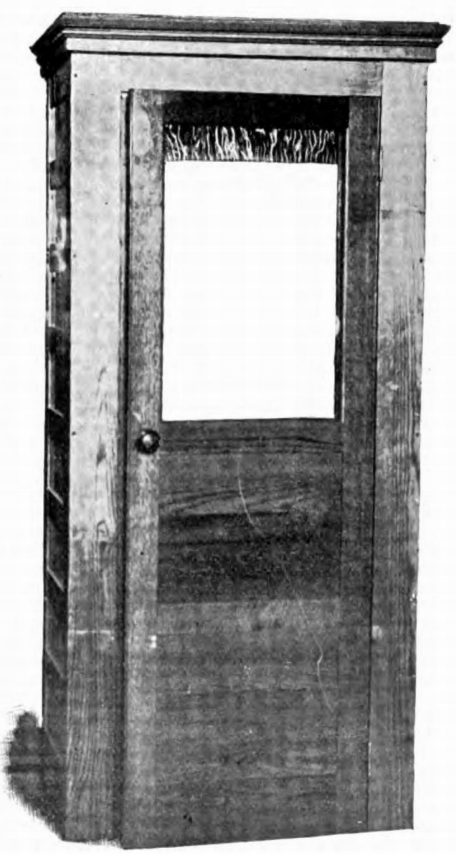

FIG. 7.

The company will be pleased to forward a sample transmitter for comparison and test to any company interested or looking for an efficient and satisfactory article and an instrument possessing superior merit over anything they may be using.

Fig. 6 shows the Eureka Company's lineman's test set, an instrument which it is putting out to a very heavy extent, and an instrument that is giving very fine satisfaction.

The company manufactures quite an extensive line of apparatus and in its

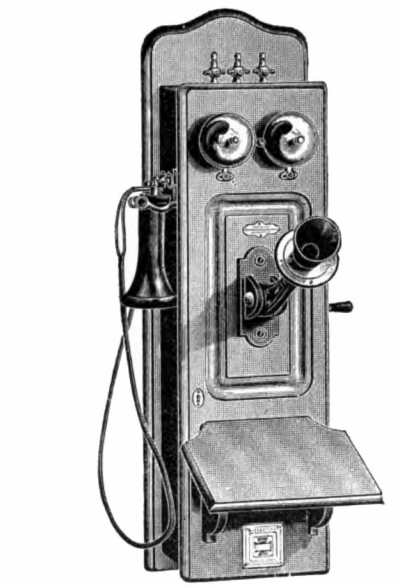

FIG. 8.

new quarters will be in a better position to turn out goods than ever before.

Fig. 7 shows the pay-station telephone booth which the company carries in stock, can ship promptly, and quotes extremely low prices on same. These booths are double-doored and are shipped knocked down.

At the present time the company is perfecting and improving its line of apparatus thruout to its entire extent and the company would kindly ask the same patronage at its new quarters from its old-time friends as was bestowed on it in its old.

The company will be pleased to quote on anything in its line and is now building its multiple switchboard, which possesses special points of merit not contained in any of its competitors' multiple boards. Full particulars and specifications on the same the company will be pleased to furnish to any one desiring.

SOLDERING CAST IRON.

The difficulty of successfully brazing cast iron is due to the carbon in the cast iron, which exists in the form of particles of graphite, preventing the adhesion of the spelter, just as a coating of dust prevents the adhesion of cement to brick or stone. If the graphite layer could be removed before starting brazing, there seems to be no reason why cast iron can not be brazed as well as wrought iron, and a process for accomplishing this result has been patented in Germany, consisting essentially in applying to the surfaces to be united an oxide of copper and protecting them against the influence of the air with borax or silicate of soda. When the joint is heated the oxide of copper gives up its oxygen to the graphite, converting it into carbonate oxide gas, which escapes in bubbles, while particles of metallic copper are deposited on the iron. Any oxide of iron which may be formed is dissolved by the borax, and the surfaces of the iron, thus freed from graphite, unite readily with the spelter which is run into the joint before it cools, the copper already deposited on the iron assisting the process. The inventor claims the cast iron can in this way be readily brazed in an ordinary blacksmith's forge.
