No. 32, 1,000 Ohm. ringer ; 4-bar generator. For party lines where not to exceed 15 telephones are used. . \$10 47
No. 42, 1,600 Ohm. ringer ; 4-bar generator.
For party lines. where not to exceed 20 telephones are used. . 1094
No. 52, 1,000 Ohm. ringer ; 5 -bar generator.
For party lines where not to exceed 30 telephones are used. . 1125
No. 62, 1,600 Ohm. ringer; 5 -bar genérator.
For party lines where not to exceed $40^{\circ}$ telephones are used. . 1172
No. 72, 2,000 ringer; 5-bar generator.
For party lines where not to exceed 45 telephones are used. . 1203
No. 82, 2,500 Ohm. ringer; 5 -bar generator.
For party lines where not to exceed 50 telephones are used. . 1219
No. $92,3,500 \mathrm{Ohm}$. ringer; 5 -bar generator.
For party lines where more than 50 telephones are used on one line, or where the character of the line is such as to require the use of the most powerful telephone obtainable
1250

It will, of course, be understood that the length of line has some influence upon the number of telephones which can be used on it.

## DESCRIPTION.

The transmitter is permanently adjusted; loud and distinct. No side tones (foreign noises in the room), no phonograph-like twang, but a reproduction of the voice.

Permanently-adjusted receiver; the diaphragm rests on a bell-shaped metal shell and is not thrown out of adjustment by unequal expansion or contraction of hard rubber and magnet metal, No exposed metal binding posts to break off or shocis the user-the cords last twice as long. Easy to inspect-the cap unscrews by hand.

The generator magnets are of a quality and treated to insure uniformity and permancy of magnetism. The armature is laminated; (built up in sections) for higher efficiency both in quantity and quality of power. Wide face, tough brass gear wheels with special cut teeth-they run smooth and noiseless. An automatic shunt (switch) throws the generator on the line.

The ringer is independent of the cabinet and is not affected by unequal expansion or contraction of wood and metal. The magnets are machine wound with silk insulated fine copper wire. The armature adjustment is by means of one screw with an ordinary wrench.

German silver hook switch springs mounted in a hard rubber block and riveted pure platinum contacts-the only metal corrosion and spark oxidization proof.

The exterior nickel plated metal parts will not tarnish and the cabinet wood is quartered oak or walnut and given a rich rub finish.

The cheapest on the market costs about two dollars less-this is saved in one trip to town for repairs.

## LINE CONSTRUCTION.

The following diagram illustrates the best method of line construction :-

## COST OF CONSTRUCTION.

In most cases, farmers furnish all labour and native poles for line construction. The following estimates will be found conservative :-

One mile, 30 poles per mile, not including labour or poles, 1BB galvanized iron wire No. 12, bracket construction.
Two wires, bracket construction ..... 1682
Cross arm construction, one wire ..... 2005
Additional wire ..... 788

