HUGE TIMES SIGN WILL FLASH NEWS

Electric Bulletin Board, Used for the Election, Will Be in Nightly Operation.

14,800 LIGHTS IN BIG PANEL

Letters Will Move Around Times Building Telling of Events in All Parts of the World.

A news bulletin service in electric lights, 14,800 of them, began publication election night in Times Square and at the same time added a new corona of blazing brightness to the Gay White Way.

It was a news-reel 380 feet long and five feet high, situated on the fourth floor cornice of the Times Building. Many thousands of citizens got their first knowledge of the election results from it. It was readable from as far north as Fiftieth Street. Within a short time it is expected to be in nightly operation from twilight to midnight or later as the regular bulletin service of THE NEW YORK TIMES.

The Motograph News Bulletin was installed for THE TIMES by Frank C. Reilly, inventor of moving letter electric signs, whose company will operate it. The sign embodies the latest mechanism for such an apparatus, some of the parts having been invented especially for this installation.

News of World to Be Flashed.

News of local, national and international interest will be flashed direct from the editorial rooms of THE TIMES to the bulletin board when it begins nightly operation, so that all in the neighborhood may read. The bulletins will be news of the world, as fast as telegraph, radio and cable bring the stories to the editorial rooms.

Times Square has been watching for weeks the installation of the massive copper panel, studded with light bulbs, which girdles the four sides of the building. On election night the job was finished to the extent that the sign could tell its story of the voting to the multitudes who gathered in the square below. It functioned without a hitch, and now work is progressing to complete an alternating apparatus which will add security against possible breakdown and permit certain effects and uses never before accomplished with such a mechanism.

Simple in principle, the machinery by which the news can be flashed is extraordinarily complex. The loiterer in Times Square merely sees a word begin to spell itself out, starting at the northwest corner of the bulb-studded panel. The bulbs just eastward light up in the shape of the letter and behind it a second letter appears. Thus a continuous flow of words appears, darting swiftly across the north side of the Times Building, progressing south on the east side, thence across the south side and back, completing the circuit.

But behind the flow, on the cable-meshed background and in the control room inside the building, a complicated process is going on. Primarily, three cables running underground from the Times Annex power plant pour energy into huge transformers to operate the display. This power, when reduced, must be dispatched to every lamp in the panel. These lamps in turn must be controlled so that each will do its instantaneous share in forming its part of one letter after another as the procession passes.

1,386,000 Feet of Wire.

Beyond the transformers are intermediate cables from which smaller cables, packed tight in massive steel ducts, bring the power to the lamp. The hook-up has 88,000 soldered connections. The wires are 1,386,000 feet long.

The apparatus is not merely an electric sign but in one sense a newspaper as well, so the control room is also a news room and composing room. Messages flashed from THE TIMES by ticker come to a desk beside a big cabinet like a compositor's case. Instead of type the cabinet contains slim fabricated slabs called letter elements.

Here the operator "composes" the message, setting it letter by letter in a deep frame. The frame, when the letters and spaces have been arranged, is inserted in a magazine at one end of a narow track, along which a chain conveyor starts the letter elements in motion. Contacts formed by each letter as it passes along the track set the lights flashing on Broadway.

The brushes which make contact with the letter elements are of a type recently invented and especially adapted to the use of THE TIMES bulletin. There are more than 39,000 of them and they must be renewed every month. Hence they are mounted in frames so as to be easily removable. A brush is in contact with the moving element only one forty-second of a second at a time. Because of this speed of contact special lamps must be used which light with utmost swiftness and die out equally fast.

Capacity Will Be Doubled.

The main feature of the control room is the frame for the letter elements which curves up at each end and passes overhead, making an endless circuit. A second frame, now being constructed, will double the story-telling capacity of the sign, either controller being able to take over complete operation.

A calculation by Mr. Reilly yesterday indicated the average number of lamp flashes of the mechanism to be 261,925,664 an hour.

"I arrive at that figure this way," Mr. Reilly said. "The controller can and does handle messages of an average of 572 letters and characters exclusive of spaces. The average letter causes each lamp to flash 1.82 times in each cycle. The message repeats seventeen times an hour and there are 14,800 lamps involved."

The installation of the bulletin board was in charge of F. E. J. Wilde, who has been an associate of Mr. Reilly for many years. He will have charge of operation also.

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