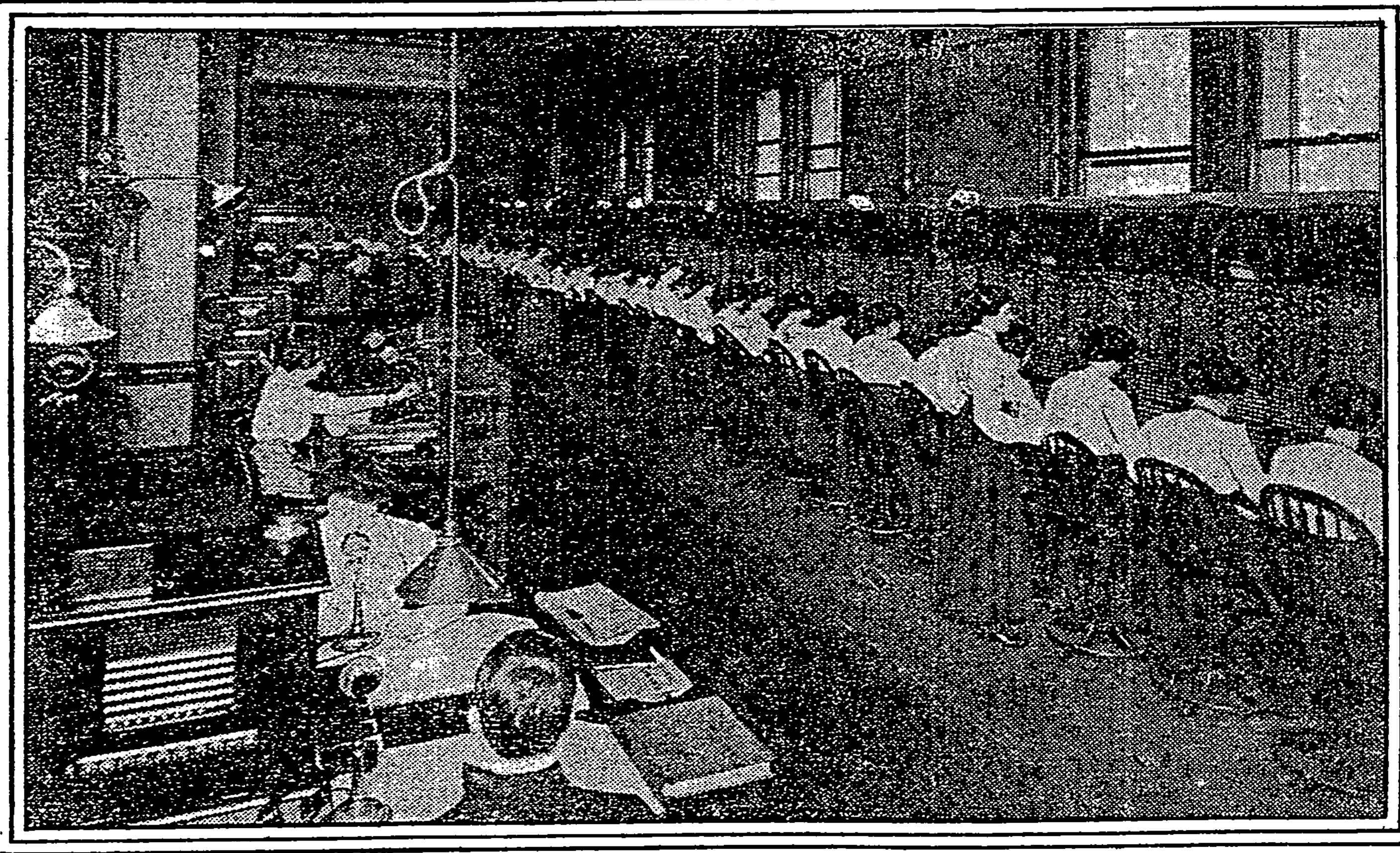


WATCHING THE PULSE OF NEW YORK TELL ITS LIFE STORY

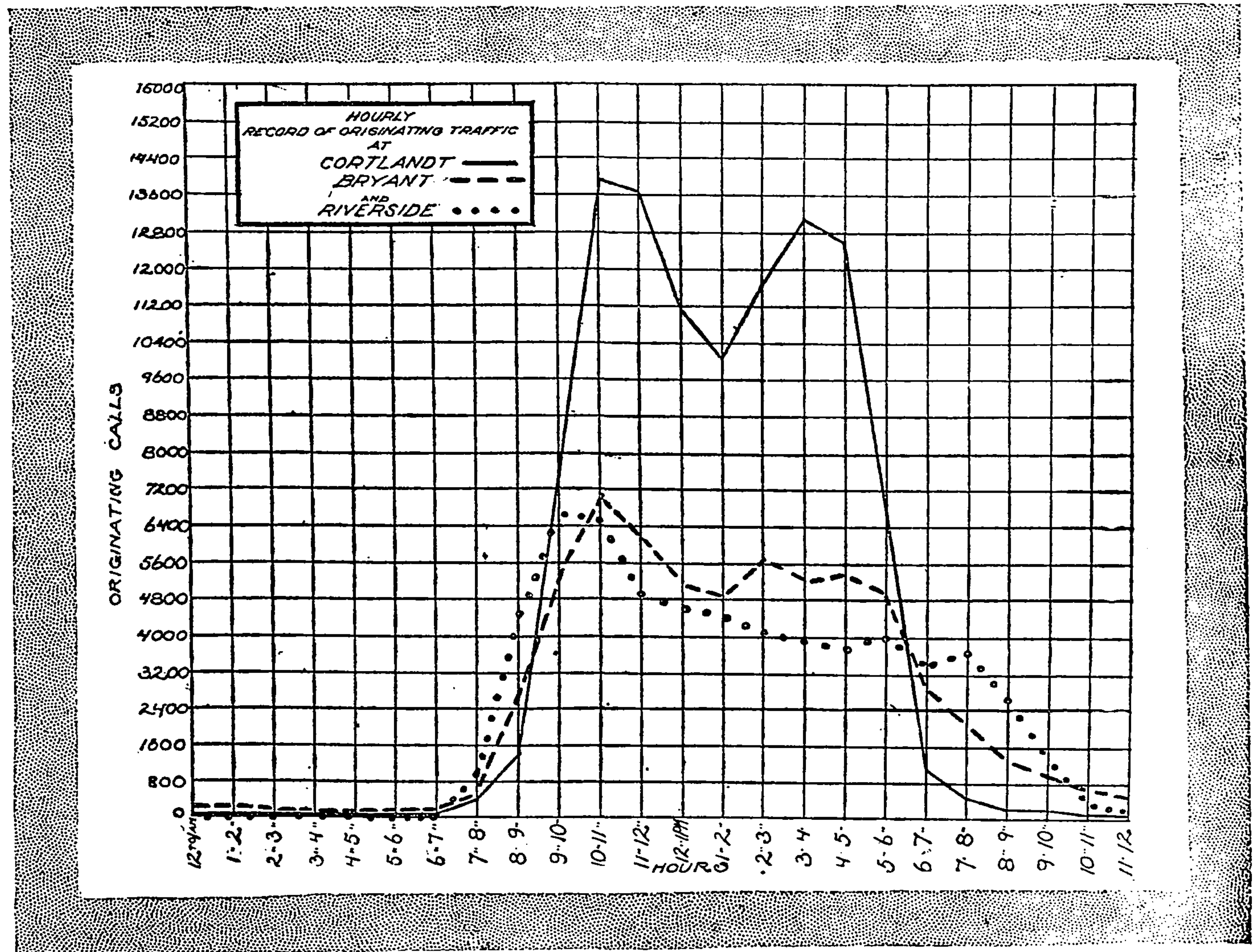


Telephone Exchange When the Business Pulse of New York Is Beating Strongly.

Activity in Business and Social Life Shown in the Daily Charts of the Telephone Exchanges.

representing the number of daily calls at three exchanges typical respectively of New York's business, pleasure, and home life—viz., Cortlandt, Bryant, and Riverside. It is claimed by those who watch the city's life year in, year out, from behind the scenes—that is, in the telephone exchanges by the light of the little glowing lamps—that any deviation from this regular daily routine of rise and fall in the number of calls can invariably be traced to its cause.

For instance, whenever there is an unusual happening—an explosion, a big fire or something like that—the number of calls at the exchange nearest the region affected at once shoots upward. Then again—say there is a baseball or football game, or a race in which there is great popular interest. At the hour when the result should be known the number of telephone calls suddenly jumps to dizzy heights.



THE PULSE BEATS OF A GREAT CITY.

The business activity is shown in the Cortlandt district indicated by the continuous line. The high mark is the opening of the Stock Exchange, and there is a decided fluctuation at lunch hour. Note the big drop from 5 to 7 o'clock.

The amusement life, indicated by the broken line, shows a steady use of the phone between 9 and 7 A. M.

The domestic life is shown by the dotted line. It also is steady during the same period.

NEW YORK never sleeps. Whenever, during each day, one part of the city is, so to speak, dozing, another is humming and buzzing with activity. Gradually in this latter quarter of the town the hum and buzz die away until there is turn unbroken quiet reigns—that part of the city is taking a cat-nap.

But as for the other part—the one that was having the comfortable little doze—there scores of electric signs are blazing, hundreds of motor cars are aggressively honking, and thousands of people are thronging the streets, with no trace of sleepiness in their faces.

And when these two have succumbed to weariness and tumbled into bed the city still has reserves of wakefulness on which to draw—recondite parts of itself, peeped by mysterious beings whose hours for slumber are as those of the owl.

In a rough and hazy sort of way we all know of these shiftings of the city's life. But there are some people here in New York whose knowledge of them is anything but hazy—people who can actually see the shiftings of life with their own eyes—no, looking on while Wall Street is being put to bed and tucked in, witness at the same time the awakening of the region of hotels and theatres to another night of evening dress, taxicabs, and champagne.

These are the telephone people—the hundreds of girls who sit at the big switchboards scattered throughout the city watching for the glow of the little lights that tell them a subscriber is calling—"Slaves of the Lamp" they have been wittily dubbed. It is no mere figure of speech to say that they have their fingers on the pulse of New York.

Take, for instance, the girls at the Cortlandt exchange. This, the biggest exchange in New York City, used to be the biggest in the world. Recently, however, part of the telephone subscribers who were in Cortlandt's district have been split up among other exchanges, so that a rival in Europe—the main exchange in Hamburg, Germany.

But it is big enough, anyhow. When midnight strikes each night, and a new day begins, the Cortlandt exchange is practically dead. There are perhaps a dozen girls there to attend to the entire telephone business of the district. Hardly a light rouses any of them to action from one hour's end to another. They are almost dozing.

This goes on for several hours. But a change is perceptible at about 6 o'clock. Janitors and other early folk begin to bestir themselves. At once the telephone exchange shows that these people are up and about. More lamps glow. The girls wake up.

Busier and busier grows the exchange—more and more girls come in, take off their wraps, sit down before the switchboards, and start answering calls.

Then, all of a sudden, the Cortlandt Exchange is a Babel—a place seemingly without system—a chaos in which there is no sense of order or hope of disentangling. Instead of the dozen listless girls of a few hours before, 170 are at the switchboards, answering calls without one moment's cessation. Supervisors walk up and down behind them, ready to jump in and help whenever any girl gets so swamped with work that she cannot give proper service. The Slaves of the Lamp are slaves with a vengeance—there is not a second that the little lamps are not glowing, summoning them to renewed effort.

They are not merely feeling the pulse of the greatest business organism in the world; they are actually watching New York's heart, suddenly as Babel burst loose in the exchange, comes a lull. It is noon. Bosses and employes are out to luncheon. If the telephone girls were watching one immense eating place, at which every business man and woman in the Cortlandt telephone district was munching his or her food, they could not be more certain of this. The number of calls which they have to handle drops by the thousand. Operators and supervisors relax, chat a bit, get some luncheon themselves.

Then—from 2 to 4—there is furious buzzing in the exchange again—a tension almost as great as that of the morning. Wall Street is still alive and kicking, you see, and so are the thousands of miscellaneous business offices which swarm in the streets about that famous thoroughfare.

After 4—a slump. Things grow slower and slower in the Cortlandt Exchange. Girls by the dozen put on their wraps and hurry homeward. Less and less are the calls; more and more the intervals of comparative quiet. The power of the lamp is waning; the slaves are almost free. Eight o'clock—9 o'clock—10 o'clock—only now and then a glow, a listless, "Number, please."

Midnight. If the Cortlandt Telephone Exchange represented all New York those who have their fingers on its pulse there at the moment when one day becomes another would be justified in pronouncing it a City of the Dead.

But, in the meantime, how about other exchanges? Bryant and Murray Hill, for instance?

Always very wakeful, they have suddenly begun to buzz with extraordinary animation. "People are making dinner appointments, and reserving tables at restaurants, and asking her if she won't please go to the theatre, and requesting hotel clerks to find out if Mr. X is in his room, and telling New Jersey that they won't be able to take that early train home. For telephone excitement of this kind, there are no exchanges like Bryant and Murray Hill. Their hours of real, crowded life are between 5 and 7, and again from, say, 11 to after midnight. They are clearing houses for Upper Broadway After Dark.

Reference to the accompanying chart will show that, although an exchange like Bryant never does the whirlwind business which is every day transacted at an exchange like Cortlandt during the hours of feverish business, it also never quite dies down to nothingness, as do that downtown nerve-centre and its immediate neighboring exchanges—Broad, John, Reitor, & Co. Bryant is like many of the most useful men in this world; not brilliant but steady. So is Murray Hill.

Interesting fluctuations of telephone activity are also noticeable in those districts that are, primarily, residential. Riverside is typical of these.

Business there in the early hours of the morning is slack, as it is everywhere else in the city. It wakes up a bit around breakfast time. After that the lord of the house goes downtown to make the Cortlandt wires buzz, and his spouse is attending to things about the house. There is little doing at the Riverside telephone exchange.

Then, however—later in the morning—the housewife goes out to talk with the cook and decides what is to be ordered by telephone from the butcher, the baker, grocer, and others of that fraternity.

Prosaic lamps glow like fireflies at the Riverside Exchange.

Then the lady of the house goes out shopping, let us say—and there is another lull.

In order better to understand what a telephone exchange looks like, and what goes on there every day, it may be well to explain a bit.

When you take your telephone receiver off its hook, that tiny light already mentioned flashes in front of the girl whom you call "Central"—one of scores, sitting in a long line at the switchboard of your local exchange.

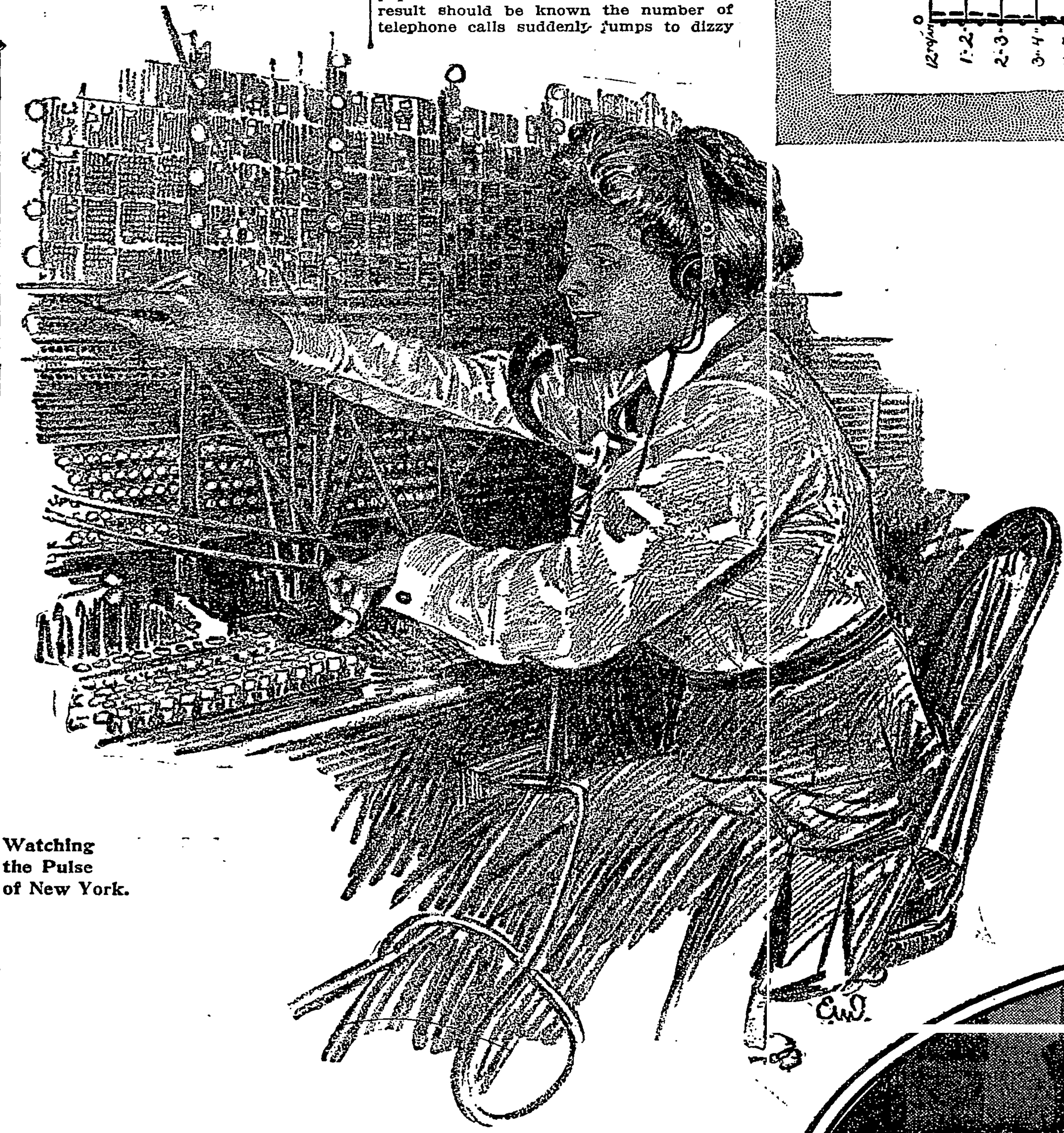
To her question, "Number, please?" you give her, say, a number in your district. She inserts a plug, representing your wire, into a small hole, which represents that of the subscriber whom you are calling, and rings the latter up. Every telephone number in that particular district terminates in a hole, or "jack," in front of each operator at the exchange switchboard; in other words, the number is repeated at intervals of about six feet all along the switchboard.

If another operator along the board has already connected the number which you want with some other, the girl who answered your call is warned by a buzz as soon as she inserts the plug in the jack on her board corresponding to the busy wire. Then it is that you hear the familiar phrase, "The line is busy."

If the subscriber with whom you wish to speak is in another district of the city, the operator who answers your call connects herself, by means of a "trunk" line, with the exchange wanted. She then gives the number you want to an operator at that exchange, who in turn inserts the plug corresponding to the trunk line communicating with your exchange into the jack corresponding to the telephone of the subscriber with whom you wish to speak.

In you call a number on a suburban toll line, the operator answering your call connects herself with a special switchboard, where there is a so-called "recording operator." After making out a slip for the call, the recording operator then gets the suburban exchange where the person you want is located, and from there the connection with his telephone is made.

If there is delay you will possibly make disparaging remarks to the girl at your



Watching the Pulse of New York.

local exchange, who has been innocent of everything to do with the call from the moment when she made connection with the recording operator.

There is an ingenious system for pay station calls. The slip made out by the recording operator is held at her desk for fifteen minutes in case any inquiry should be made as to the charge on the call. Five minutes constitutes a regular call, and the average time of a "paid" conversation is three minutes. Hence the number of inquiries concerning the length of calls from pay stations is relatively small.

But if there is a dispute the exchange is notified from the pay station. The recording operator at the exchange refers to the slip, which is doing its fifteen minutes' wait at her desk. On it the time at which the conversation started is stamped. At the end of the fifteen minutes the slip goes to the business department of the telephone company.

On long-distance calls the routine is similar to that on toll lines. The local operator answering your call simply makes connection with the "long-distance" switchboard of her exchange, from which the connection is completed in successive steps.

The fluctuations in telephone activity are clearly shown by the rise and fall of the lines in the accompanying chart, represent-

ing the number of daily calls at three exchanges typical respectively of New York's business, pleasure, and home life—viz., Cortlandt, Bryant, and Riverside. It is claimed by those who watch the city's life year in, year out, from behind the scenes—that is, in the telephone exchanges by the light of the little glowing lamps—that any deviation from this regular daily routine of rise and fall in the number of calls can invariably be traced to its cause.

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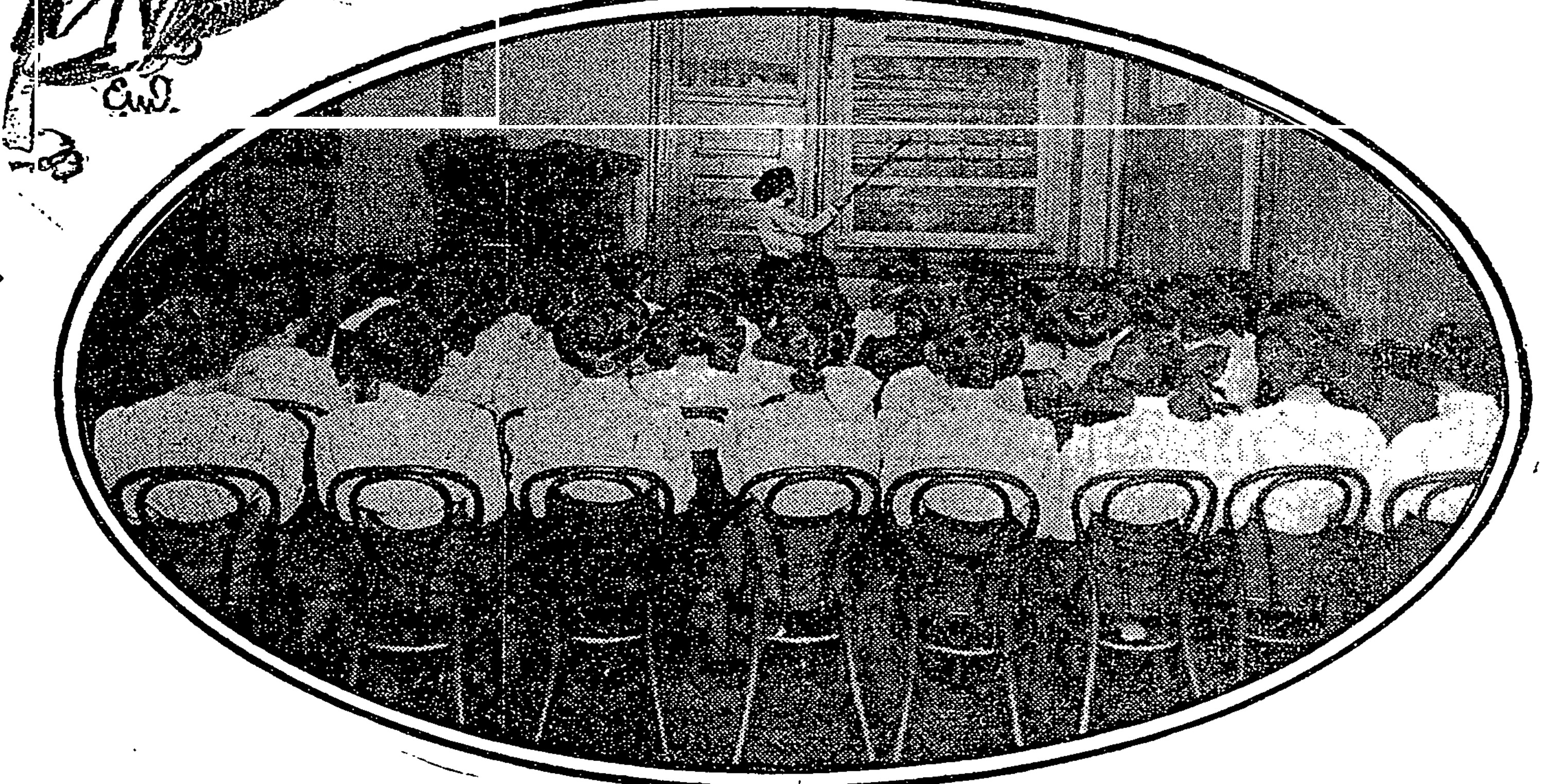
That means that people are calling up newspaper offices, hotels and clubs to find out the winner, or—having found out—that they are communicating the tidings to friends equally interested.

Election days, although holidays, are among the busiest for the girls in the exchanges. The general interest as to the result causes a great deal of general telephoning. Then, when people desire to know the result of the voting the girls are worked for a while to the limit of their capabilities.

But by far the severest strain that can be put on telephone operators is that caused by exciting happenings on the stock market. Every second counts then for those using telephones—subscribers, their nerves stretched to snapping point, are furiously impatient and exacting.

"I have known girls at the switchboards go into hysterics at such times," declared one of the men in authority at the Cortlandt Exchange.

Besides the regular business district, where the hours are roughly from eight to six, there are others which keep telephone operators from going to sleep by being active at abnormal hours. One of these is the region along West Street and contiguous thoroughfares, where wholesale commission merchants and marketmen hold sway. Things spring into life thereabouts at 5 in the morning, and are



A Class of Soon-to-be Telephone Girls Being Instructed.

quite chipper at 6, when not even a janitor is stirring down Wall Street way.

Then there are the newspaper offices, where there is plenty of telephone activity between 1 o'clock in the morning and 3, when business and pleasure alike are, as a rule, allowing the operators to lead an easy life.

"Is there no time when all New York

scraper alone—the Hudson Terminal Building—there are 750 miles of telephone wire and 3,000 telephones.

And, lest the operators should show a tendency to chatter and chew gum while on the job, there is the Metropolitan Life Building, with 2,000 telephones; the City Investing Building, with 1,800; the Broad Exchange, with 1,600; the Singer Tower,

with 1,500, and a whole legion of others where there are plenty of excitable and exacting subscribers at "the other end" of the wire.

They have got the science of making connections down very fine at telephone exchanges here, in spite of the tremendous volume of business, if we go by the following statistics, vouched for by the telephone authorities of New York:

Average time required for an operator to receive a call and repeat it to the called subscriber, 13.5 seconds.

Average time required for the operator to connect with and start ringing the calling subscriber, 13.5 seconds.

Average time required for subscriber to answer the telephone, 10.5 seconds.

Average time required to disconnect the lines after the conversation is completed, 3.8 seconds.

A telephone girl's life would be strenuous enough if all she had to handle in her day's work were "regular" calls—those made by number and completed without incident, as part of the regular telephone traffic routine. But, in addition to these, a large number of calls pour daily into the exchanges which must be classed as "irregular"—calls which cannot be completed until "information" is rung up to straighten matters out.

Among these disturbers of the smooth working of the exchanges are: Calls for discontinued numbers.

Calls for numbers that have been changed.

Calls for numbers of telephones at or near particular places.

Calls for the names or addresses of subscribers where only the telephone number is known.

Calls for the telephone numbers of subscribers connected since the last issue of the telephone directory was printed.

It will be easily seen that any girl who becomes a telephone operator has to undergo a regular system of training for the work. For this end the telephone company maintains regular operators' schools, where girls are taught among other things the uses of the various parts of the operating equipment, the telephone geography of New York and vicinity, and the proper method of completing any call.

In these schools there are "dummy" switchboards, where everything is made as similar as possible to what the girls will find on real switchboards when they become full-fledged operators. No subscribers' calls come into these "dummy" switchboards, of course; instructors take the place of the subscribers, and send in calls to the dummy switchboard until the students there are able to make connections swiftly and accurately. Only a small percentage of the many applicants for positions as operators pass the school test satisfactorily and get jobs at regular switchboards.

Pay a visit to a big telephone exchange at the rush hour; glance at a chart showing the sleeplessness of New York; hear a brief summary of what a girl must know before she is qualified to be one of those mysterious voices which tell us to "hold the wire, please," and that "the line is busy"—do all this and you will feel like parading the celebrated song in "The Pirates of Penzance" thus:

Taking one consideration with another, A hello girls' lot is NOT a happy one.