

Bell Grows Two Billion Dollars Bigger

Everyone depends on it, everyone must do business with it, everyone is affected by it: that's A. T. & T. and its affiliates, for which the only word is colossal.

By HAYES B. JACOBS

THE business that sprang from young Alexander Graham Bell's invention of the telephone in 1876 is now a Communications Colossus, towering over any other privately owned corporate enterprise on earth. It is so big, important, all-pervasive and "necessary" that attitudes toward it, like those toward other giant organizations, such as armies, navies and governments, inevitably range the full scale from respect to scorn, from love to hate. It has been satirized by novelists as a greedy, monopolistic "empire." It has been hailed for superior business methods, technological achievements and employe heroism. It has been cited for its contributions to the nation's economy, defense and social welfare. And it has been hacked at by antitrust lawyers as a ravenous, overfed ogre.

Admire it or not, there it stands, the mighty Bell System—cautious, conservative, fabulously successful. On the land, under the sea, in the air, beside the bed—and lately even in outer space. Everyone is dependent on it, everyone must do business with it, everyone is affected by it.

The System is composed of the parent, management unit, American Telephone and Telegraph Company; a manufacture and supply unit, Western Electric Company; a research and development unit, Bell Telephone Laboratories, and twenty-odd operating telephone companies. As a colossal entity it can all be described, but only partly, in colossal figures. It has more assets (more than \$28 billion) and more customers (it operates 68,650,000 telephones) than any other United States business. It employs 733,000 people—more than the respective populations of eleven states—and 27,000 of them do nothing but sit and give out "Information." Its annual payroll runs to \$4.5 billion. The ever-mounting demand for its services brings more than \$9.5 billion a year into its coffers.

A.T.&T. (head, shoulders, best foot and wallet of the Colossus) is owned by 2.25 million investors, foreign and American—the latter representing 1 out of every 95 of our population, only some of them, contrary to a Wall Street myth, being widows and orphans. To keep up with the demand for its services it has recently announced plans to spend \$3.25 billion in 1964. Of that sum, \$2,012,000,000 is for growth, \$423 million for modernization and \$815 million for what it calls "just standing still." To help raise the money it will soon offer 12.25 million shares of additional common stock ("the stock that acts like a bond") to its investors. To give them added buying incentive it will increase its quarterly dividend from 90 cents to \$1 in April and, "if it meets share owners' approval" at the next annual meeting, split its stock two-for-one in June. (Hot market tip: it will probably meet their approval

unless, as could happen, the earth ceases to rotate.)

Since World War II, the System has had to raise about \$21 billion in new capital—enough to buy the entire United States gold stock and have \$5 billion for a rainy day. What kind of business is it that spends that kind of money; that looks around for still more; that needs \$815 million a year in order to "stand still"?

THE Bell System is not only big, but self-conscious about its size. However, to those who have suggested that there should be "lots of telephone companies," it asks, "Would you want several dozen telephones in your house?" (Several extension phones now—that's another matter.) A question could also be put to those who have suggested that the Government should run such a basic service for the People. That question is:

"How do you, the People, like the United States postal service?"

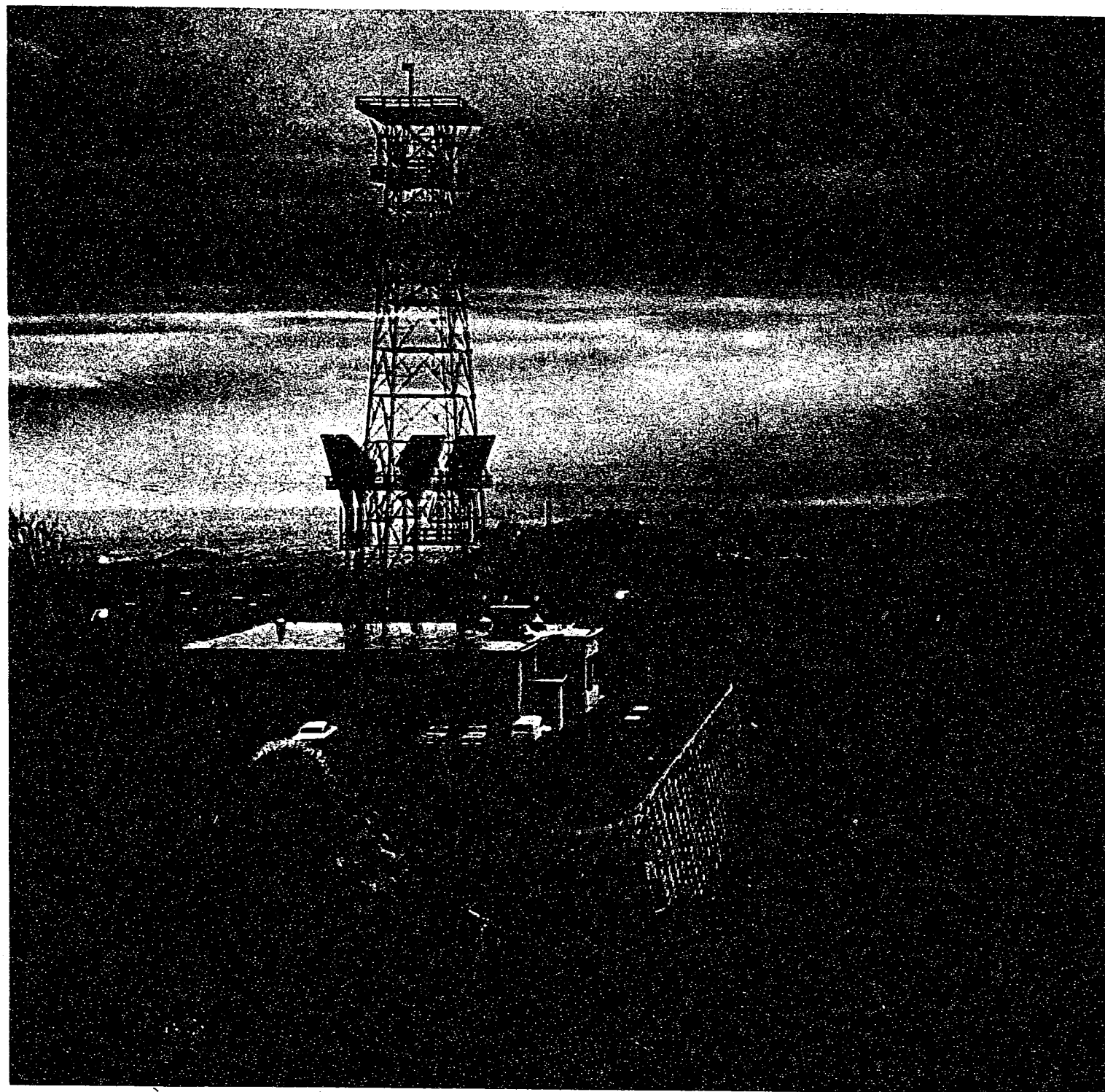
Big, rich and undeniably monopolistic (it calls itself, but not very often, a "natural" monopoly), the Bell System, through its operating companies, nevertheless provides what is indisputably the best, most reliable communication service on the face of the globe. And it is a fact, overlooked by many of its critics, that it is very closely regulated by the Government, which controls its rates, quality of service and earnings. Considering all this, then, still another question can be asked: "Why shouldn't its 2.25 million investors reap a good profit?" Under its system, the System claims, everyone benefits.

"WE'VE striven by words and by works," says Frederick R. Kappel, chairman of the board of A.T.&T., "to convince the country that a good prof-

it is in everybody's interest." And he adds: "By this, we certainly do not mean all the profit we can get."

Another fact, not well known, is that there are still some 2,650 independent telephone companies. (In the early nineteen-hundreds there were about 20,000.) They are owned by 600,000 investors, employ 100,000 people and serve over half the nation's geographical area. All of them, of course, use the System for interconnecting service. And it is the System that carries all major national radio and TV network programs over its facilities, provides most A.P. and U.P.I. news wires, and thousands of private-line and teletypewriter networks.

A.T.&T.'s president is Eugene J. McNeely, an earnest, unassuming 63-year-old Missourian who started as a \$25-a-week student engineer and now earns about \$200,000 (Continued on Page 44)



In Arizona a lonely station in the Bell System's vast complex of radio, cable and switching centers. "On the land, under the sea, in the air, beside the bed—and lately even in outer space."

HAYES B. JACOBS is a freelance whose work appears regularly in several magazines.

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a year. (Kappel, as chairman and chief executive, also started at \$25 a week and makes more than \$250,000.) One of McNeely's dicta to employees is: "We must not throw our weight around, and we must not provide service just by rote and rule." His office is in the A.T.&T. headquarters building at 195 Broadway; his residence (two phones) is uptown, on Madison Avenue, and he has a 70-acre country place (three phones) near Kingston, N. Y.

SYSTEM executives are eager to make one point: they hope nobody gains the impression, from the increasingly huge sums sought for "improvement," that the business they manage is worn out or run down. It is, they point out, not so much run down as run ragged—by a rapidly multiplying public that clamors for more and more service.

The volume of long-distance traffic, for example, doubles every six to eight years. That has forced the System, at huge cost, to provide such innovations as D.D.D. (direct distance dialing). Kappel's edict was that D.D.D. service should be so good that people would "swear by it and not at it." Because it further depersonalizes phone service and is wiping out exchange prefixes, for which many people have sentimental or status-oriented attachments, there has been considerable swearing. D.D.D. gives good swift service, routing calls in an average of 10 seconds, an impressive figure considering that there are 251,425,000 conversations, including local calls, buzzing daily over the nationwide network. But as demands for service mount, the System can see that it must build a still larger, more flexible network, keep down still bigger traffic jams and, with the help of electronics, cut the routing time drastically.

In a single year, the System puts in, takes out or rearranges some 15 million telephones, and whereas a phone used to be just a phone, a million of these are now complex, six-button junior robots each requiring up to 50 special wire arrangements, and so popular that by 1970 twice as many are expected to be requested every year. Today, the United States has about 84 million phones; by 1980 the System will have had to provide the major share of 235 million. It is partly that kind of activity, plus ever-increasing maintenance programs, that the System calls "just standing still."

Western Electric Company, with 13 manufacturing plants and 35 distributing houses, turns out more than 50,000 items of communications equipment annually and buys, for a billion dollars, 150,000 others. Last year it sold \$2,278,000,000 worth of equipment to the Bell operating companies and \$492 million worth of defense gear to the Government. It has 150,000 employees, and two large subsidiaries, the Teletype Corporation and the Nassau Smelting and Refining Company.

In 1949 the Justice Department attempted to separate Western from A.T.&T. Ironically—as System officials quickly pointed out—at the same time the Justice Department was trying to break up the System, the Defense Department was turning to it for a staggering array of military projects.

THE suit was settled in 1956 by a consent decree, limiting Western to the manufacture of equipment for the Bell System and defense-contractor use. Western also agreed to get out of the movie sound system business, and to make some 8,000 communications items, including the Bell-invented transistor, available to anyone royalty-free. It is still a major defense and "govern-

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Drawing by Stevenson: © 1964 The New Yorker Magazine, Inc.

"To me, it isn't just installing a 'phone, Lou. It's giving one human being a means of reaching out to other human beings."

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ment adjunct" industry; one of its key projects right now is providing planning and engineering support for the landing of men on the moon.

Bell Laboratories, owned jointly by Western and A.T.&T. and generally acknowledged as the world's greatest industrial research and development center, is made up of 14,500 scientists, engineers and supporting staff. Its 1964 budget is about \$350 million, divided almost equally for System and Government work. But dollar signs give only a partial clue to the reasons for its prowess.

OTHER important factors have been foresight and imagination, and a remarkable "looseness" of management's grip on personnel. Bell Labs hires brilliant men, reminds them that the basic Labs job is "improving communications," then almost literally leaves them alone.

Dr. James B. Fisk, the tall, wiry, M.I.T.-trained physicist who heads the Labs, sees his domain as "a community of gifted people," an "institution of men, working together intimately but independently, each free to follow his own mind." Such men must have a goal, he adds, "that is sufficiently important, broad and technically meaningful that gifted people will be inspired, challenged and rewarded."

The idea is amplified by Dr. W. O. Baker, vice president for research, who pictures the special community as being "big enough and good enough to have a culture of its own." Baker scowls at the mention of words such as "teamwork"; he favors a mildly unified group of strong-minded individuals. "Teamwork," he says wryly, "is a kind of dirty word around here."

Bell Labs' many contributions in its broad field have often overturned established science and technology. From its "gifted people" have come the "negative-feedback amplifier" that has resulted in distortion-free long-distance circuits; information theory; investigations in electron diffraction and the wave nature of matter, and the transistor. The last two have brought Nobel Prizes to their discoverers.

Other achievements are the coaxial cable system, the fundamental discoveries leading to the science of radio astronomy, long-life vacuum tubes, automatic error correctors for computers, sound movies, hi-fi recording, the first intercity TV transmission and the solar battery.

NOW emerging from the Labs are major advances of the last decade. One of these is Touch-Tone service. In the next ten years dial phones will be converted to ten-pushbutton sets, with which calls can be made more than twice as fast as with dialing.

Another is conversion to E.S.S., an electronic switching

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system that will make the nation's telephone network a super-brain-and-muscle machine with faster and more sophisticated memory and performance capabilities than any yet devised by man. Customers will be able to reach frequently called numbers, local or long distance, by dialing (or pushing) only two digits instead of seven or ten. They will dial a code so incoming calls will reach them automatically when they are visiting a friend. They will add, without operator help, a third person to an existing conversation, and they can get immediate connection to a busy line as soon as it becomes available.

Also on the way is a coin phone with only a single slot; the phone tallies the money, and no operator will have to count all of the "bings" and "bongs." This will lead to direct dialing of long-distance calls from pay stations.

SINCE it is one of the largest organizations in the world, the Bell System is open to the criticism that it is made up of Organization Men, and to the extent that that loosely defined term has any validity, the criticism is valid—though not throughout the System. On executive and management levels the tendency toward conformity, "group-think" and committee decision-making on trifling as well as important

matters is often evident. (Six executives, including a highly paid medical director, once sat for four hours considering the design, colors and wording of some Blood Bank posters, pledge cards and leaflets.)

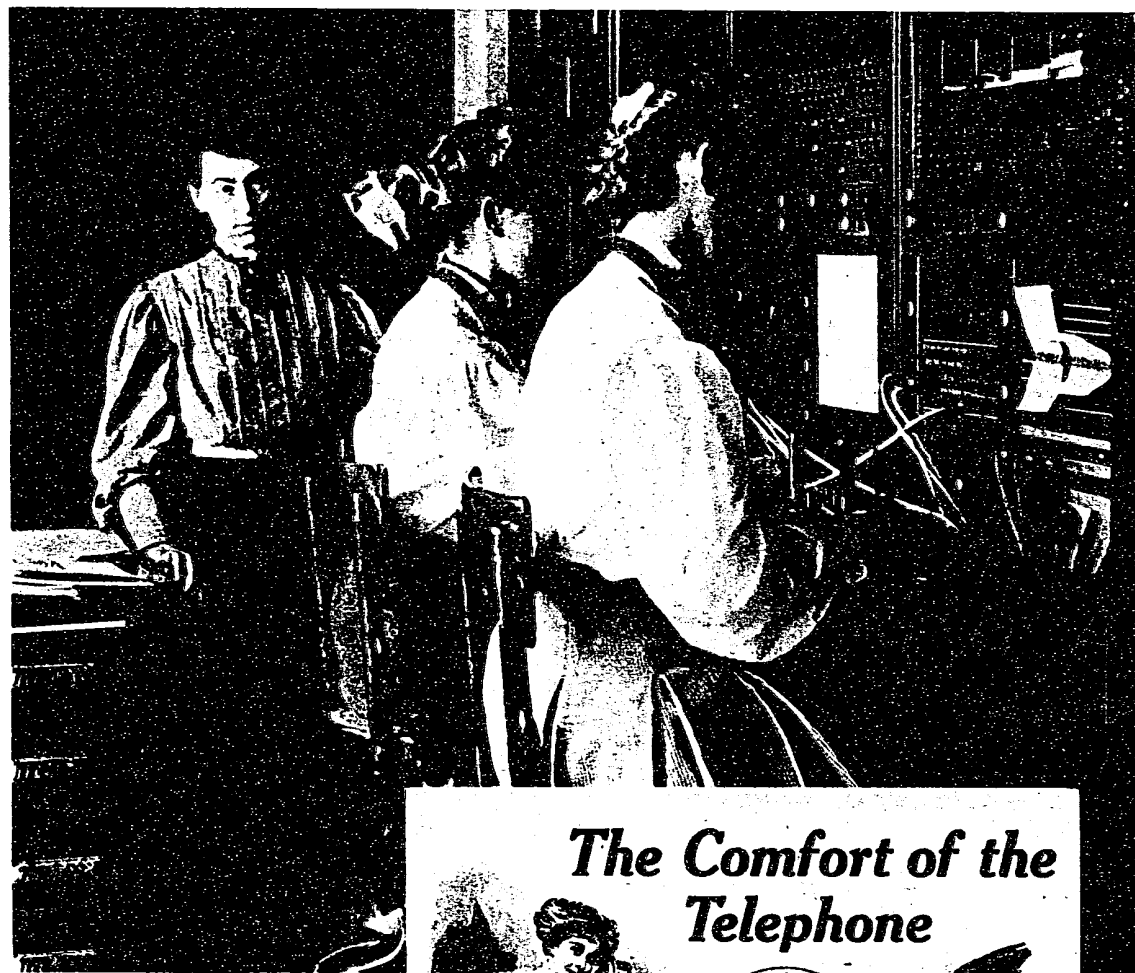
EXCEPT for the technical staff at Bell Labs, the System offers uncomfortable quarters to most individualistic, "inner-directed" workers. Its personnel departments, where as many as 100 applicants may be interviewed before a single low-level administrative vacancy is filled, are unusually adept at spotting the non-conformist, the man who is not likely to become a good "System man."

The System has even been known to scrutinize an applicant's wife—or at least her geographical origin. A Western-born applicant at one of its East Coast units once cleared all the interview hurdles up to the executive vice-president, who asked if his wife was from California. Told she was not, he said:

"Good! We're not prejudiced, but we *have* found that a lot of good men come here and like us fine, and then their wives get homesick for California and urge them to move back."

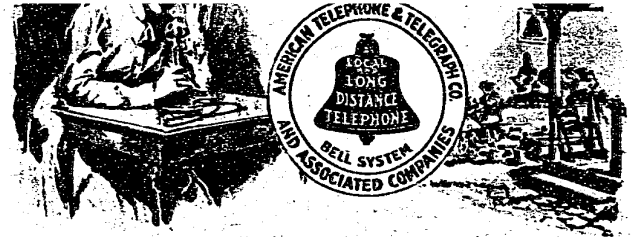
Conformity to System mores is subtly, sometimes openly, urged in matters of dress ("Won't you *please* think about buying a hat?" a de-

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The Comfort of the Telephone

B.D.D.D.—Above, the telephone exchange of Hamburg, N. Y., about 1908, or Before Direct Distance Dialing; and, at right, a "Ma" Bell advertisement of the period.



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partment head once asked a subordinate), of participation in civic and community affairs, and even of place of abode. A man who worked in a Manhattan office, and lived within walking distance, was once told by his boss, a commuter from New Jersey, that he was "the last man in this department who's going to be allowed to live in New York."

Insistence on uniformity, on "the System way," has extended down even to matters of punctuation. A new young junior executive who questioned the punctuation in a letter typed by a spinster secretary (with 32 years of Bell System service) received her



BOARD CHAIRMAN — Frederick R. Kappel of American Tel. & Tel.

patient explanation: "You see, sir, we don't use many commas in the Bell System."

Rewards for the faithful employee are many; the Colossus offers the same job security as the Government, gives generous sickness and retirement benefits, reviews salaries annually, and in general takes a paternal interest in its employees. (*Maternal*, some say, referring to the system as "Ma" Bell.)

MOST employees respond with loyalty and outspoken pride. A recent New Yorker cartoon touched a near truth when it depicted a phone installer addressing an associate. "To me," he said, "it isn't just installing a phone, Lou. It's giving one human being a means of reaching out to other human beings."

The System is extraordinarily sensitive about its public image and has spent millions on public relations and publicity to promote such ideas as "The voice with a smile"

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and "The best possible service at the lowest possible cost." More millions go into advertising, aimed at selling service, service "extras," acquainting customers with changes and maintaining institutional prestige.

The watchword throughout is quiet dignity and conservatism. A. T. & T.'s ads, prepared for the last 55 years by the staid old N. W. Ayer agency of Philadelphia (sometimes called "the Bell System of the advertising world") tend toward the friendly-folksy, all-is-well, bless-our-native-land theme.

A STARRY-EYED, ever-dependable operator ("Close by if you need her") gazes out of the page, looking for emergencies—a fire to summon firemen to, or a hurricane to stay right on the job during. Family groups are depicted, with glowingly healthy, apple-cheeked youngsters and beaming, silver-topped grandmas and grandpas. Everyone keeps in constant long-distance touch with everyone else, smilingly remembering all birthdays, graduations and anniversaries. And everyone's steps are saved with those extension phones. Contentment, in Telephone Ad-land, is a conversation, and happiness is a warm receiver.

Striving for the preservation of its image has made the System intensely press-relations conscious. In no other business or industry are P.R. and publicity activities so closely coordinated and controlled. A brief press release from one unit of the System may be circulated for approval to as many as 50 executives in that and other units before it is issued. The wording of a single clause may stir up what a harried P.R. executive once called a "tempest in an A. T. & T. pot."

A timely story with real news value may thus be held up for weeks. "I guess you'd say we'd rather be coordinated than hit the front pages," a Bell publicity man explained. "It's frustrating, but at least no one can ever call us publicity hounds."

THE result of all the caution is an almost wholly favorable climate of press and public opinion, which the System checks on regularly with elaborate surveys and analyzes with the help of sociologists and psychologists.

It is easy to predict, too, that A. T. & T. will get a favorable press when it splits its stock next June, even though some of its own share owners may not know precisely what is going on. At the meeting at which the last split was accomplished, one share owner, an elderly lady, approached the dais and asked in a whisper: "When are you going to bring in the stock?"

"Bring it in?" asked a baffled System official.

"Yes," she said. "I want to watch you split it."