WONDERFUL MECHANISM OF WALL STREET

How Every Second of the Five Hours' Trading Is Utilized Without Waste.

PRECISELY at 10 every business morning a liveried attendant armed with a huge gong steps upon the floor of the New York Stock Exchange and beats a resounding tattoo. The first strident note is a veritable call to arms. Before its echo has died away hundreds of traders, with their scouts, aids and messengers, are struggling in a great seething mass. The same signal has meanwhile been carried to thousands of offices—the money world is awake.

Continuously for the next five hours the kings, hirelings, servants and slaves of finance wage fierce battle. Just 18,000 seconds, any one of which may spell ruin, and the volume of business requires that each tick of the clock shall be a record of something done. Nowhere else in the world has the mechanism for carrying on business been reduced to such an exact science.

Wall street is always feverishly impatient to hear the latest news about itself. The general public may be content to wait for its morning paper. The Wall-street man demands the latest financial news of the entire world at intervals of seconds only. The financial news service under this pressure has reached a perfection little short of marvelous. The news is telegraphed over a variety of tickers directly from the floor of the exchange to thousands of offices, it is talked over telephone wires with continuous five-hour connections, or it is printed in miniature newspapers and distributed by hand at the rate of 50 or more editions every five-hour financial day.

Active Messenger Boys.

Visitors to Wall street will scarcely fail to notice the swarms of small boys clutching handfuls of papers, and usually on the dead run. They tumble unexpectedly out of basements, disappear in an instant through the doorways of great office buildings, to return shortly empty-handed. These are the most alert newsboys in the world. They distribute by main boy-power the famous financial news slips to the offices of the market operators. In normal times they deliver an edition every 10 minutes. During financial panics or other excitement editions are even more frequent.

The 10-editions-an-hour newspaper is organized much the same as an ordinary news sheet, but with more dependence upon the telegraph, telephones and various labor-saving devices. The financial news is collected and condensed in the briefest possible form, and is rushed to the typesetting machines. In an incredibly short time the form has been thrown into a buzzing little press and the edition is being run off. Under ordinary conditions brief news items can be written, edited, put in type and a proof obtained within from three to four minutes.

The form and size of the newspaper or bulletin is sacrificed to speed. The sheets measure about 5x9 inches. The volume of news furnished in this form in a day is considerable. They give the news more in detail than the tickers, and are more reliable. They are meant to be read at a glance in the rush of trading hours. They give briefly studies in the values of securities, reports on railroad and industrial properties, and comment on the money and exchange markets.

Editions Every 10 Minutes.

The newsboys, usually about 50 strong, line up before the little presses as the time for the edition approaches. The bulletins flutter from the press at the rate of 800 a minute. The boys grab them by the handful and disappear through the nearest door on the run. The time of their exit and return is taken to the exact second. Wages are advanced according to these records. A matter of 20 seconds or so in covering a route may be sufficient to distinguish a good boy from a slow one. More than 400 offices in the district are served in this way at least every 10 minutes.

A well-organized strike on the part of these newsboys, were it to come unexpectedly, would be felt more or less seriously on all the great financial exchanges of the world. A delay of seconds in distributing important news bearing upon the market often causes serious fluctuations in prices. At such times the other means of distributing the news are usually clogged, and are far behind the actual financial times. So for a few brief minutes the financial world of Wall street may be said to hang upon the alert boys. Incidentally they stand an excellent chance of promotion. It is possible that some of the great financiers of the future are at present standing in line before the little buzzer presses.

Tickers and Repeaters.

The little tickers, with their incessant chatter and more or less intelligible hieroglyphics, are, of course, familiar. These report the quotations of stocks in thousands of offices in something less than a minute after their announcement. During financial panics the market at times becomes so active that the tickers find themselves an hour or more behind the news. The stock ticker has been elaborated of late in several ways. A complicated mechanism which prints news by electricity on a continuous page or scroll is the most successful of these devices. All these contrivances are operated from a common center, either on the floor of the Exchange or some point in direct communication with it. A single operator seated before a typewriter writes upon 1000 sheets in every section of the city at the same instant of time.

The number of Stock Exchange tickers is restricted and many ingenious devices are resorted to repeat the official figures with the least possible loss of time. To be sure, the figures may be repeated over other tickers, and there are several such services for sale. But this, however nimbly done, entails the loss of two or three minutes at best.

By the time the belated figures arrive an active stock is likely to have fluctuated a dangerous distance. The best substitute for an official ticker is to repeat the figures by word of mouth over a telephone, the circuit being kept open throughout the entire financial day.

Brokers Require Aid.

The Wall-street man, during the financial rush hours, requires more waiting upon than royalty. As the general action moves rapidly, the number of employes increases in direct ratio. There are, for example, more messenger boys to the acre through the financial district than on any other spot of equal size in the world. Each active trader on the floor of the Stock Exchange has from two to five assistants or messengers. In every office a similar wealth in the number of assistants is to be found, while the number of messenger boys on call is also unusual. It is estimated that there are from 80 to 100 special messengers available upon each acre of the Wall-street district. The boy population of the office buildings is rather more than twice this. For every acre, therefore, there are some 250 messengers. Imagine an acre lot filled with 250 boys. They would pretty comfortably crowd it.

It is difficult to realize the extent of the enormous daytime population of the Wall-street district. It is crowded with great, intricate hives of office buildings, all of which are densely populated. The largest office buildings in the world are to be found within a stone's throw of the Exchange, and many of them have long waiting lists. The natural congestion on the surface is increased by the unusual narrowness of the streets thereabouts. Many of them, though lined with 20-story structures, are little more than alleyways. Should all the inhabitants of the great buildings on Wall street, near Broadway, chance, for instance, to leave their offices at the same instant, there would only be standing-room for about one-fourth of them. In other words, the population of Wall street, between Broadway and Bond street, would be sufficient completely to fill the street four times over. The fatal crowding of the famous Black Hole of Calcutta seems trifling by comparison.

Eighteen Mail Deliveries a Day.

The enormous volume of mail matter of all classes which finds its way in and out of the Wall-street district daily is another striking indication of its tremendous activity. The average business man throughout this section receives his mail every day by 18 different deliveries. A delay of, say, 30 minutes, in delivering a letter is likely to be a far more serious matter in the "street," than a similar loss of a day or two in almost any other business activity. The efforts of the postal authorities to satisfy this demand are unequaled in any other part of the country. In a single building on Broad street, with a frontage of less than 40 feet, there are, for example, three letter-carriers constantly busied delivering the mail. And the letter-boxes to be found at every corner are absolutely inadequate for holding the mails. Every building of any pretension, and there are scores of them, has one or more mail chutes extending from the first to the 20th floor, or whatever it may be, which are in constant use.

How Wall Street Eats.

It has become something of an axiom that men in Wall street have no time even to eat. And this is literally true as far as the regular business hours of the day are concerned. From 10 to 3, while "'Change" is the center of so many revolving dollars, the great majority of brokers never eat. Each minute is far too valuable. But the population of Wall street is so enormous that restaurants are naturally an important feature of its daily life. The financial district is so bounded with great rivers, so far removed from the resident section, that every one is dependent upon the public dining-rooms. There are restaurants at every turn, on the roofs of sky-scrapers, in cellars far below the street level or in the interiors of great buildings, far removed from any possible daylight. There are restaurants to cater to every taste and every pocketbook. The millionaire dines in restaurants famous the world over, whose very names are household words. The man who has lost practically his last dollar, the office boy or the bootblack are served with dishes for a few pennies alongside the palatial cafe or dining clubs, so crowded is every one for space.

Push-Cart Cafes.

The most picturesque features of the street is the curious open-air push-cart cafes. Nowhere else are they to be found in such variety. They are arranged with stoves and broilers in Winter and with ice in Summer, and they offer imitations more or less palatable of practically every dish of the expensive restaurants and for 1 or 2 cents, seldom more. It is the time-honored custom for the carts to assemble in the streets leading into Broad street, near the Stock Exchange, just before noon. At the first stroke of the clock they all start in one mad rush to gain the most advantageous positions. Not infrequently a cart is overthrown in the hurry and literally a free lunch is scattered about the street.

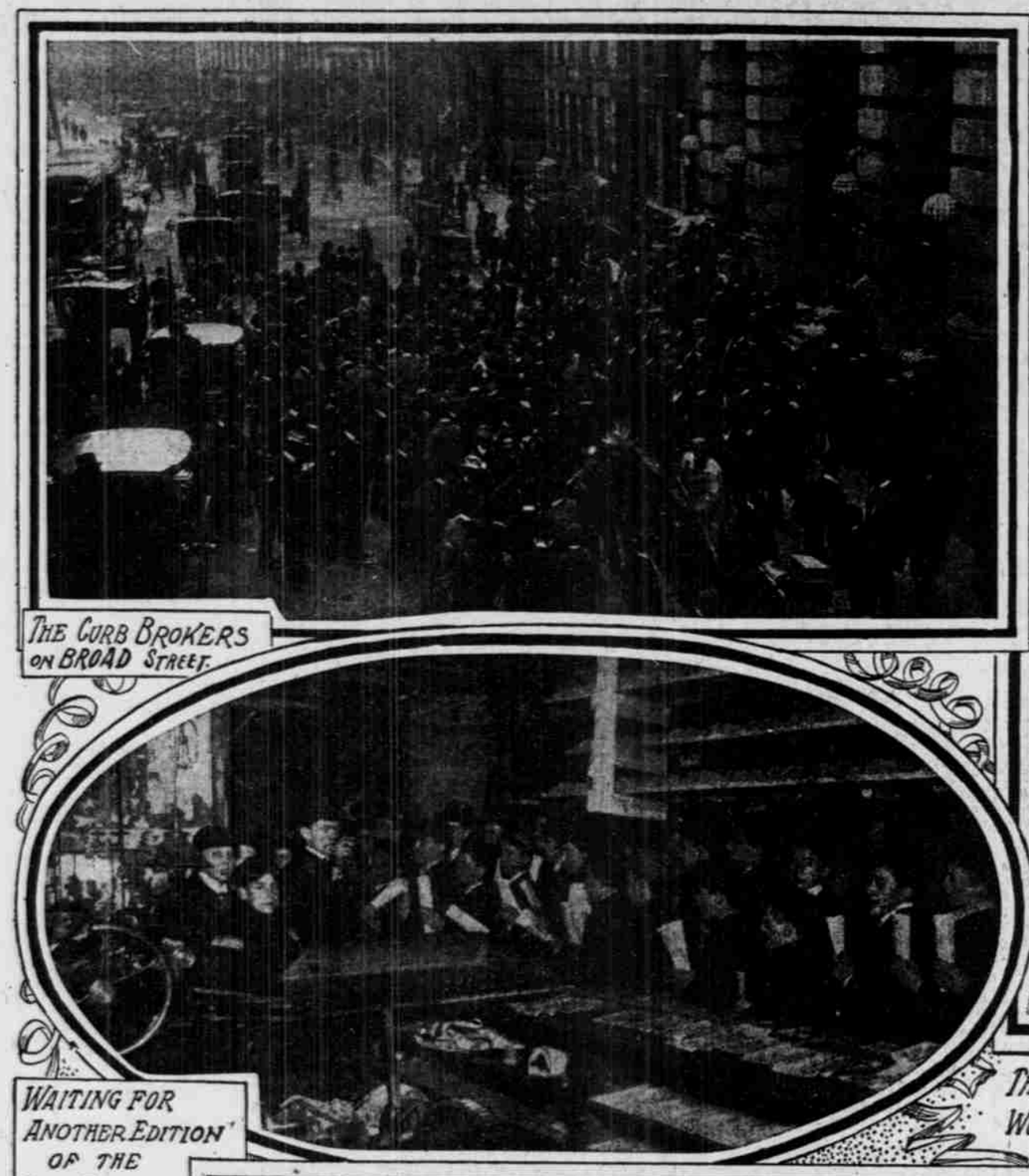
The menus of the push-cart cafes are amazingly varied. You may enjoy a variety of sausages, cooked to order and served hot, for a penny. The waffle wagon, from which this pastry is served with sugar or syrup at a cent a portion, is one of the oldest contributors to the bill of fare. Other wagons make specialties of soups, still others serve some vegetable, such as hot corn, in the season. The desserts are offered in even greater variety than the more stable dishes, and one is simply bewildered by such delicacies as ice cream, water ices, pies, cakes and puddings. Hundreds are to be seen daily crowded about the push-cart cafes.

Police Protection.

Not the least important detail of the mechanism of Wall street is its elaborate system of detective protection. A very effective deadline has been established at Cortlandt street for years, beyond which no crook known to the police, nor even a suspicious-looking person, is allowed to pass. As an additional precaution, however, a score or more of Central office detectives are constantly on guard at the principal entrances to the financial district. They usually congregate in the vicinity of the United States Treasury building at Broad and Wall streets.

Millions of dollars are constantly being carried past this point. It comes in gold, packed in sacks, and carried by the ton in steel wagons; it is brought down town in cabs or carried in ordinary traveling bags or in the pockets of the crowd which constantly pours into Wall street. Such a thing as a "hold-up" is unknown. A cry for help in the financial section would instantly bring a formidable force of armed detectives to the spot. The men who stand guard here can usually tell from their long experience when a man carries a large sum of money from the nervousness of his manner or some sign of self-consciousness, and a careful eye is kept upon him.

F. A. COLLINS.



THE CURB BROKERS ON BROAD STREET.

WAITING FOR ANOTHER EDITION OF THE FIFTY EDITION A DAY WALL ST. PAPER.

THE DAY INHABITANTS of THESE BUILDINGS WOULD FILL THE STREET FOUR DEEP

THE PUSH CART BRIGADE.

MAN AFTER PHYSICAL DEATH

NOTABLE LECTURE BY SIR ROB'T BALL, NOTED ASTRONOMER.

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IN a late lecture at the Royal Institute, Sir Robert Ball, lately Astronomer-Royal in Ireland, and a man with a singular capacity for "popularizing" science without debasing it, stated that we now knew the existence of 30,000,000 of stars or suns, many of them much more magnificent than the one which gives light to our system. The majority of them are not visible to the eye, or even recognizable by the telescope, but sensitized photographic plates which are, for this purpose, eyes that can stare unwinking for hours at a time—have revealed their existence beyond all doubt or question, though most of them are almost inconceivably distant, thousands or tens of thousands of times as far off as our sun. A telegraphic message, for example, which would reach the sun in eight minutes, would not reach some of these stars in 1800 years. The human mind, of course, does not really conceive such distances, though they can be expressed in formulae which the human mind has devised, and the bewildering statement is from one point of view singularly depressing. It reduces so greatly the probable importance of man in the universe. It is most improbable, almost impossible, that these great centers of light should have been created to light up nothing, and, as they are far too distant to be of use to us, we may fairly accept the hypothesis that each one has a system of planets round it like our own.

Taking an average of only two planets to each sun, the hypothesis indicates the existence within the narrow range to which human observation is still confined of at least 300,000,000 of separate worlds, many of them doubtless of gigantic size, and it is nearly inconceivable that those worlds can be wholly devoid of living and sentient beings upon them. Granting the to us impossible hypothesis that the final cause of the universe is accident, a fortuitous concourse of self-existent atoms, still the accident which produced thinking beings upon this little and inferior world must have frequently repeated itself; while if, as we hold, there is a sentient Creator, it is difficult to believe, without a revelation to that effect, that He has wasted such glorious creative power upon mere masses of insensible matter. God cannot lose gases. The high probability, at least, is that there are millions of worlds—for, after all, what the sensitized paper sees must be but an infinitesimal fraction of the whole—occupied by sentient beings, probably mortal in our sense, as all matter must decay, certainly finite; and then what is the relative position of mankind?

If he dies at death, man is a member of a weak tribe of animals with inferior physical powers, with keen brains, but very poor natures, with a very short life, and so insignificant in numbers that it seems at first sight possible—we write with all reverence—that he might be forgotten even by God. We know, or think we know, from Revelation that he is not forgotten; but there is no natural reason why he should not be, in the sense that any one of the smaller forest tribes of Africa may be forgotten by the most learned geographers or most benevolent of philanthropists. We can conceive no thought more depressing than this of the contemptible insignificance, the almost invisibility, of man among the myriads of sentient creatures of whom he knows, and while he remains here will continue to know, absolutely nothing. His fate is the fate of an animalcule, such as science suspects to exist, below detection or observation by the most searching microscope. How an unbeliever can be grateful to the astronomer we cannot imagine, any more than we can imagine how men who see in mankind only superior animals can conceive of humanity as a worthy object of worship. We had rather worship the sun, or space, which at least is grand in this, that it contains all that exists.

It is only by believing that the human being has a spirit, and that it continues to exist after death, that man can in any degree regain his importance in the scheme of things. Even then he is but one among many myriads of competitors, and in no way the center or flower, as he now thinks himself, of creation; but still he may be an important being, lasting for countless ages, capable through those ages of perpetual additions to his powers, and of becoming through all that time of more use in the work of the universe. He is, from the astronomer's point of view, of sufficiently little use now, for he only cultivates, and in cultivating uses up, a single grain of sand. We know nothing about it, of course, except that man exists after death, which we hold to be proved at once by Revelation and by the perpetually repeated experience of a few persons to whom it has been given to see dimly and for a few moments beyond the veil which seems to the majority to drop at death, and to be so impenetrable; but it is difficult to believe that anything created—and the spirit is as much created as the body—can remain stationary in condition, as even inanimate matter does not do. Why should it, when there must be so much, not only to know, but to do, in this illimitable universe?

The popular notion that man, once escaped from the confinement of the body, does nothing except sit on a cloud and sing praises to the glory of God, whose glory is so perfect without him that he was content when man was not in being, rests upon no evidence, whether of reason or Revelation, and seems to us derived either from man's long experience of overtoil and misery, and his enjoyment, therefore, of their absence, or from the inherent Asiatic dislike for exertion. Why should we not work for ever, as well as now? If man can live again, and grow in that new life, and exert himself to carry out the always hidden, but necessarily magnificent, purpose of the Creator, then, indeed, his existence may have some importance, and the significance of his place of origin be forgotten. For he has an inherent quality which does not belong, so far as the mind can see what must always remain partially dark, even to the Divine, he is capable of effort not only of growing greater than before, but of adding force to an inanimate thing like his own body.

What if that power of effort should be slowly aggrandized until man, now a little higher than the monkey, became a really great being? There is a field for hope in that speculation which is limitless, and, dreamy as it seems, it is at least more reasonable, if the existence of spirit is conceded, than the popular belief upon the subject—that singular compound of reverence, laziness and intense delight at the prospect of escape from all miseries inherently connected with this present life. Some day or other the great teachers of theology will, we believe, take up this subject with enthusiasm and with powers to which, of course, we cannot pretend. They have grown out of the crude notions of heaven and hell as the place of harps and the place of fire, but they have not yet replaced them by any definite teaching. By and by they will, we think, see that in falling into their present vagueness they have thrown aside their strongest weapon for the conversion of the world, and will once more examine and state strongly the little that Revelation teaches on the subject—it is not nothing—and the little more that can be deduced from admitted facts by human reason, and then tell us in clear words what they think. When they do they will be startled to find how strongly human interest in their teachings has revived, how fierce will be the controversy as to the accuracy of every sentence they utter. They tell us enough of the Whence, but are too cautious about the Whither.

EROS VERSUS SCIENCE.

When February bleak and cold
Enshrouds the earth in a weird white fold,
Trite toasts are sung in ev'ry land
To divers growths that stir life's sand.
There's first the chaise of horseless power,
And ships that mount o'er town and tower,
And next the cable without wire,
To gird the world and trade inspire.
But all forgot is an imp I know,
Who counts his prey in this month of snow.
Haste raise the cup with flowing wine
To the eifish sprite, Saint Valentine,
Ere some misled by his mortal garb
Be pricked too late by his magic barb.

—CLEMENT RELLES.