

Correspondence.

Communication with Vessels at Sea.

To the Editor of the Scientific American:

The frequent failure of transatlantic steamers to reach their ports on time, owing to some accident to their machinery, and consequent anxiety of the public, has, in connection with other considerations of perhaps greater importance, made it seem to me that before many years the demand for some means of communicating with vessels on the ocean would become imperative.

The recent accomplishment of this object in reference to a train of cars in full motion at first sight seems to point out the direction in which inventors should work. But the two cases are so different that little can be hoped for in that line until, at least, our knowledge of electricity is much extended.

There seems to me to be one way of accomplishing the desired object, though not so completely as one could wish. This is to establish a line of stations in the path of European vessels, connected with each other and with the continents by telegraph cables.

The average time of our fast passenger steamers is not far from eight days between New York and English ports.

Now, suppose that seven vessels, constructed in a peculiar manner mentioned below, be anchored at distances of one day's sail from each other in the path of these steamers, and it will be apparent that there is at hand a ready means for seafaring persons to send messages to friends, and inform them of any accident that may delay their entry into port, and in return receive the news of the world at each station. That this would be a great convenience, especially to business men, no one will doubt.

The chief difficulty would be in anchoring the station ship firmly to the bottom, to resist the driving force of the winds.

Their effect, however, might be much lessened by constructing the ship in the shape of a bottle or chemist's flask, having only the neck above water. The wind would then have only a small surface to act upon, and the inertia of the great mass below, immersed in the water, would secure the anchor cables against sudden shocks due to squalls.

These cables would extend, on three or four sides of the ship, out for several miles, and have immense anchors attached. The motion imparted to the ship by the waves would be slight compared with the great length of the cables, and the sags in the latter would easily admit of any such motion, even in violent storms.

This flask shape would be the best for strength, and the great surface of the ship would be removed from the beating action of the waves. A tall mast might be erected on top, and carry an electric light to show its position to passing vessels at night.

In good weather, ships could send a boat to the station for mail, and by lying to for an hour, or waiting until the next station was reached, send answers to the land. When too stormy to lower a boat, signals could be exchanged, and persons on shore informed of the whereabouts of the vessel.

In case of a ship being burnt at sea or sunk by an iceberg, what a harbor of refuge these stations would be to the survivors!

Four or five men would be required at the station, and several vessels would stop during each day, so that it would not be as lonesome as or more dangerous than some of our lighthouses.

This system of stations would also add greatly to the efficiency of the Signal Service.

New Haven, Conn., Feb. 9, 1885.

C. G. R.

Crowded London.

At a recent meeting of the London City Commission of Sewers at Guildhall, Mr. H. H. Bridgman presented a scheme, of which he submitted a plan and map, contemplating the erection in the center of the roadway between the Mansion House and the Bank of a circular chamber about 20 feet in diameter with an 8 foot skylight at the top. Around this he would place, on the surface, a pavement 6 feet wide, which would be an effective refuge for foot passengers who preferred to cross above ground. Under the surface the plan was to construct four radiating subways from the center to the Union Bank at the corner of Princes Street, to the northeast corner of the Mansion House, to the open space in front of the Royal Exchange, and to the Liverpool and London and Globe Insurance office at the corner of Lombard Street and Cornhill.

The subways would be lined with glazed white bricks from end to end, the central chamber and the staircases would be lighted with the electric light, and the subways would be watched and guarded during the day and closed at night. It had been urged that bridges across the thoroughfares would be more useful than underground ways, but he contended that they would create more obstruction and occasion more danger than they would obviate. As to the necessity for such an improvement, let them consider the enormous pedes-

trian and vehicular traffic passing the spot daily. The traffic had now increased 29 per cent or 30 per cent since 1860, and it was computed that 70,000 persons now crossed the street in nine hours of the day, and 108,000 in the twenty-four hours, or at the rate of over 34 millions a year. These people had now either to thread their way among horses and vehicles at great danger to life and limb, or the vehicular traffic had to stop every few minutes to allow them to pass. In regard to the vehicular traffic, it was stated that at that particular spot vehicles passed in sixteen different directions at the rate of 54,000 a day, or 17 millions a year; and it was still increasing.

Bird Life in Florida.

Reader, I am going to take you with me to-day, into the woods and swamps, to try and give you a glimpse of the bird life that may be found within a short distance of Palatka. Taking a rowboat, we start early, that we may arrive at a little creek some distance up river by daylight. As it is yet dark, night birds are still holding their fetes in the woods, and from every direction comes the "hoo-hoo-ho-hoo" of the barred owl, with which the swamps are filled, while occasionally the low, mournful note of the screech owl reaches our ears, mingled with the cry of the whippoorwill. At length we reach the creek, just as the first rays of dawn begin to pierce the cloud of blackness that surrounds us; here we come upon a great blue heron, who has been feeding among the lily pads that fringe the mouth. For a moment he stands and gazes at us in mute surprise, as if to inquire what right we have to thus disturb his meal; then, as if suddenly remembering that we probably have some of those things that make a big noise and usually prove disastrous to creatures of his class, he springs into the air, takes a reef in his long neck, and floats lazily away to some more remote spot, where he can finish his breakfast in peace. Entering the mouth of the creek, the first sound that attracts our attention is the note of the yellow-bellied woodpecker. Let us see if we cannot find him, and see what he is at, down in this part of the world; at last we discover him clinging to the side of a large water oak, and busily engaged in devouring the insects which its trunk affords; occasionally he pauses and gives utterance to his queer whining notes, best represented by the syllables, "che-che-e-cheo-cheu." But while we are watching this bird, which we have met so often at the North, a strange note suddenly reaches our ears. Leaving the bird with which we are so well acquainted, we start in the direction of the noise; suddenly it stops, and all is still; with abated breath we wait for it to be repeated, for I think I recognize it; all at once it commences again. Listen! it sounds much like a pileated woodpecker, but much stronger and louder; yes, it is he, the matchless ivory billed woodpecker.

Landing, we cautiously approach, now dodging behind this tree, now under cover of that, but all in vain; he has discovered us, and is off for parts unknown, and as he leaves he utters a wild cry, that bids defiance to all pursuers. The next bird to attract our notice is the Florida carter. What a queer bird he is. How awkward and ungainly he looks as he sits on that stump, twisting his neck into a dozen different shapes as he gazes at us, and tries to determine in which direction he shall fly! The nearer we approach, the more frantic become his efforts to twist his neck off, until suddenly, on our coming too close, he slides off the stump into the air, and flies for some distance up the creek. Notice the manner in which he flies—in much the same manner as a hawk—with quick strokes of his wings, and then sailing a short distance; his neck he carries straight out in front after the fashion of ducks. See how he flops his wings and pokes his head about in his endeavors to alight on the limb of that tree that projects over the water. After several unsuccessful efforts, he at length secures his balance, and then turns his head to see if we are following him. As we again draw near, he concludes that we are getting too familiar, and flies into the air high above the trees, and for a few minutes sweeps around in broad circles much like a hawk, only beating his wings briskly all the time; soon he comes down, and flies straight toward us about ten yards above the water, and in attempting to pass over our heads he offers such a splendid chance, and is in such good plumage, that I cannot help grasping my gun and giving him the contents of one barrel, which proves successful in pacifying him, and we bring him in to prepare for the cabinet at home. As we round a curve in the stream, we come upon dozens of turkey buzzards perched in the trees; and on the ground beneath them the putrid carcass of some animal that has probably drifted in here with the tide, covered with these birds, who are busily engaged in devouring it, and gloating over the rich feast they have found. As soon as one has eaten all he can possibly hold, he flies laboriously to a tree; or if too gorged to fly, makes his way to some fallen tree or upturned root, and there, if he is not disturbed, he will sit until what he has eaten is digested, and then fly back after more, as hungry as ever. As we have watched them some time, let us pass slowly on. Presently a large flock of bluebirds fly overhead; now

they are sweeping about in wide circles, and constantly calling to each other; now they are all perched amid the branches of some tall tree. After watching them repeat these maneuvers several times, we come to the conclusion that they are gathering in flocks preparatory to leaving for the North. No sooner, however, have we left these birds than a larger flock of American goldfinches wing their way over, closely followed by a flock of robins, and these in turn by a number of purple grackles, who are chattering to each other about the long journey that is before them.

All at once the scream of the sparrow hawk is heard, and instantly the conversation ceases between all parties. Those who are flying about in the air seek the shelter of the branches, while those already there huddle together and remain motionless until the marauder has passed. Ah! there is our friend the crow. Listen well to his harsh notes, for it may be a long time before you will hear him again, as he is very scarce here. The red-cockaded woodpecker is here in large numbers, as is also the golden wing, but the first far outnumber the second, though we are constantly meeting with them. We are now up among the pines, so let us land, and see what they will afford us. Hearing a confused twittering in the top of a tall pine tree, we look up, and see a number of little forms hopping about and pecking at the cones. After firing several ineffectual shots, one is at last hit, and comes tumbling down through the branches; picking him up, we find him to be a handsome male specimen of the brown-headed or pygmy nuthatch. Of course, on discovering this, several more have to be procured, until seven in all lie side by side to prove the accuracy of our aim. The scrub is also full of many small birds, and among others we recognize the Maryland yellow throat, varied pine creeping, and black throated blue warblers. Seeing one species that we do not recognize, we resort again to the gun, and find it to be the yellow red-poll warbler, quite rare at the North, so we procure several specimens. Suddenly the air around us is filled with the whir of rapidly beating wings, and a covey of quail (*Ortyx virginianus*) that we have stumbled upon, goes speeding away over the tops of the bushes. Bang! bang! bang! bang! and three birds fall to satisfy our craving thirst for blood. Enough to make a lunch on, at any rate; so, as it is past the hour of noon, we kindle a fire, roast our birds, and proceed to make a meal on food that is fit for a king. While eating, a fine specimen of a red-tailed hawk alights in a tree a short distance off; dropping everything, I seize my gun, and, after carefully dodging from tree to tree, at length reach a place near enough to fire, and—slay one more specimen for the cause of science.

On entering the scrub after finishing our meal, we surprise a flock of cardinal grossbeaks, and succeed in securing a number of fine specimens. At this season they are not in song, but instead a "chip," uttered in much the same tone as that of a bay-winged bunting. One species of woodpecker we find to be as common here as the downy is at the North—the red-bellied. We cannot go into the pines or swamps without hearing dozens of them; their note is best represented by the syllables "chip-chip, chip-chip," uttered in a harsh, guttural tone, and repeated every few moments. The mocking bird is also to be met with in the swamps; but he is less numerous here than in the town, where he is very common, and tame. On our way down the creek we see several specimens of the hermit thrush, and one of the brown thrush, or thrasher. In a bush that stands on the bank we discover two catbirds hard at work engaged in devouring the berries with which it is loaded, and occasionally uttering their plaintive note. Passing out into the river, we discover a flock of bluebills, and out of it manage to secure three handsome specimens, two males and one female. We arrive home just after dark, and on counting up the spoils find that, besides the many valuable notes we have made, we have lying before us the following birds: Seven brown-headed nuthatches; five yellow red polls, six cardinal grossbeaks, one red-tailed hawk, one carter, and three bluebills.

Yes, we are tired, but are more than satisfied with the day spent among the birds.

E. M. HASBROUCK.

Palatka, Fla.

Railway Stops.

The London and Brighton Railway Company (England) lately accurately ascertained the daily number of stoppages made by its trains. Out of a total of 17,000 stops in 24 hours, only 10,000 were regular station stops, the remaining 7,000 being irregular stops between stations, waiting for the line clear signals, etc. The traffic on this line is chiefly suburban and local passenger, and the loss of time and money on 7,000 extra stops per diem must amount to a large figure. Reckoning each stop at only 3 minutes, the loss amounts to 350 hours per day, and taking the wages of a crew working a train at 1s. 9d. per hour, or 42 cents, the annual loss due to this item alone amounts to nearly \$50,000 per annum—rather a large sum to pay for the privilege of having more traffic than can be handled conveniently. This line is worked on the block system throughout.