



SPACE.	1st Class.	2nd Class.	3rd Class.	Small Matter.
1 inch.	\$2.00	\$1.50	\$1.00	\$0.50
2 inches.	\$3.00	\$2.25	\$1.50	\$0.75
3 inches.	\$4.00	\$3.00	\$2.00	\$1.00
4 inches.	\$5.00	\$3.75	\$2.50	\$1.25
5 inches.	\$6.00	\$4.50	\$3.00	\$1.50
6 inches.	\$7.00	\$5.25	\$3.50	\$1.75
7 inches.	\$8.00	\$6.00	\$4.00	\$2.00
8 inches.	\$9.00	\$6.75	\$4.50	\$2.25
9 inches.	\$10.00	\$7.50	\$5.00	\$2.50
10 inches.	\$11.00	\$8.25	\$5.50	\$2.75
11 inches.	\$12.00	\$9.00	\$6.00	\$3.00
12 inches.	\$13.00	\$9.75	\$6.50	\$3.25
13 inches.	\$14.00	\$10.50	\$7.00	\$3.50
14 inches.	\$15.00	\$11.25	\$7.50	\$3.75
15 inches.	\$16.00	\$12.00	\$8.00	\$4.00
16 inches.	\$17.00	\$12.75	\$8.50	\$4.25
17 inches.	\$18.00	\$13.50	\$9.00	\$4.50
18 inches.	\$19.00	\$14.25	\$9.50	\$4.75
19 inches.	\$20.00	\$15.00	\$10.00	\$5.00
20 inches.	\$21.00	\$15.75	\$10.50	\$5.25
21 inches.	\$22.00	\$16.50	\$11.00	\$5.50
22 inches.	\$23.00	\$17.25	\$11.50	\$5.75
23 inches.	\$24.00	\$18.00	\$12.00	\$6.00
24 inches.	\$25.00	\$18.75	\$12.50	\$6.25
25 inches.	\$26.00	\$19.50	\$13.00	\$6.50
26 inches.	\$27.00	\$20.25	\$13.50	\$6.75
27 inches.	\$28.00	\$21.00	\$14.00	\$7.00
28 inches.	\$29.00	\$21.75	\$14.50	\$7.25
29 inches.	\$30.00	\$22.50	\$15.00	\$7.50
30 inches.	\$31.00	\$23.25	\$15.50	\$7.75
31 inches.	\$32.00	\$24.00	\$16.00	\$8.00
32 inches.	\$33.00	\$24.75	\$16.50	\$8.25
33 inches.	\$34.00	\$25.50	\$17.00	\$8.50
34 inches.	\$35.00	\$26.25	\$17.50	\$8.75
35 inches.	\$36.00	\$27.00	\$18.00	\$9.00
36 inches.	\$37.00	\$27.75	\$18.50	\$9.25
37 inches.	\$38.00	\$28.50	\$19.00	\$9.50
38 inches.	\$39.00	\$29.25	\$19.50	\$9.75
39 inches.	\$40.00	\$30.00	\$20.00	\$10.00
40 inches.	\$41.00	\$30.75	\$20.50	\$10.25
41 inches.	\$42.00	\$31.50	\$21.00	\$10.50
42 inches.	\$43.00	\$32.25	\$21.50	\$10.75
43 inches.	\$44.00	\$33.00	\$22.00	\$11.00
44 inches.	\$45.00	\$33.75	\$22.50	\$11.25
45 inches.	\$46.00	\$34.50	\$23.00	\$11.50
46 inches.	\$47.00	\$35.25	\$23.50	\$11.75
47 inches.	\$48.00	\$36.00	\$24.00	\$12.00
48 inches.	\$49.00	\$36.75	\$24.50	\$12.25
49 inches.	\$50.00	\$37.50	\$25.00	\$12.50
50 inches.	\$51.00	\$38.25	\$25.50	\$12.75
51 inches.	\$52.00	\$39.00	\$26.00	\$13.00
52 inches.	\$53.00	\$39.75	\$26.50	\$13.25
53 inches.	\$54.00	\$40.50	\$27.00	\$13.50
54 inches.	\$55.00	\$41.25	\$27.50	\$13.75
55 inches.	\$56.00	\$42.00	\$28.00	\$14.00
56 inches.	\$57.00	\$42.75	\$28.50	\$14.25
57 inches.	\$58.00	\$43.50	\$29.00	\$14.50
58 inches.	\$59.00	\$44.25	\$29.50	\$14.75
59 inches.	\$60.00	\$45.00	\$30.00	\$15.00
60 inches.	\$61.00	\$45.75	\$30.50	\$15.25
61 inches.	\$62.00	\$46.50	\$31.00	\$15.50
62 inches.	\$63.00	\$47.25	\$31.50	\$15.75
63 inches.	\$64.00	\$48.00	\$32.00	\$16.00
64 inches.	\$65.00	\$48.75	\$32.50	\$16.25
65 inches.	\$66.00	\$49.50	\$33.00	\$16.50
66 inches.	\$67.00	\$50.25	\$33.50	\$16.75
67 inches.	\$68.00	\$51.00	\$34.00	\$17.00
68 inches.	\$69.00	\$51.75	\$34.50	\$17.25
69 inches.	\$70.00	\$52.50	\$35.00	\$17.50
70 inches.	\$71.00	\$53.25	\$35.50	\$17.75
71 inches.	\$72.00	\$54.00	\$36.00	\$18.00
72 inches.	\$73.00	\$54.75	\$36.50	\$18.25
73 inches.	\$74.00	\$55.50	\$37.00	\$18.50
74 inches.	\$75.00	\$56.25	\$37.50	\$18.75
75 inches.	\$76.00	\$57.00	\$38.00	\$19.00
76 inches.	\$77.00	\$57.75	\$38.50	\$19.25
77 inches.	\$78.00	\$58.50	\$39.00	\$19.50
78 inches.	\$79.00	\$59.25	\$39.50	\$19.75
79 inches.	\$80.00	\$60.00	\$40.00	\$20.00
80 inches.	\$81.00	\$60.75	\$40.50	\$20.25
81 inches.	\$82.00	\$61.50	\$41.00	\$20.50
82 inches.	\$83.00	\$62.25	\$41.50	\$20.75
83 inches.	\$84.00	\$63.00	\$42.00	\$21.00
84 inches.	\$85.00	\$63.75	\$42.50	\$21.25
85 inches.	\$86.00	\$64.50	\$43.00	\$21.50
86 inches.	\$87.00	\$65.25	\$43.50	\$21.75
87 inches.	\$88.00	\$66.00	\$44.00	\$22.00
88 inches.	\$89.00	\$66.75	\$44.50	\$22.25
89 inches.	\$90.00	\$67.50	\$45.00	\$22.50
90 inches.	\$91.00	\$68.25	\$45.50	\$22.75
91 inches.	\$92.00	\$69.00	\$46.00	\$23.00
92 inches.	\$93.00	\$69.75	\$46.50	\$23.25
93 inches.	\$94.00	\$70.50	\$47.00	\$23.50
94 inches.	\$95.00	\$71.25	\$47.50	\$23.75
95 inches.	\$96.00	\$72.00	\$48.00	\$24.00
96 inches.	\$97.00	\$72.75	\$48.50	\$24.25
97 inches.	\$98.00	\$73.50	\$49.00	\$24.50
98 inches.	\$99.00	\$74.25	\$49.50	\$24.75
99 inches.	\$100.00	\$75.00	\$50.00	\$25.00

Cards in Business Directory, 25¢ each paper.
Local Notices, eight cents a line first insertion.
and five cents per line each subsequent insertion.
Notices of Marriages and Deaths, 50 cents.
Advertisements not under contract will be charged and charged for as ordered out.

WHICH WAY?

Children, stop your play.
And tell me which way
I shall take to reach the city on the hill.
First the way
With a smile:

Through the mud, across the stile,
By a brook where wild flowers grow,
Where the birds sing sweet and low:
Then you forget it is so far,
And how tired are your feet,
For the calm road you, my son, will
If you take this way to the city on the hill."

Then the boy,
With a frown:
"This way:
By the mill and through the town—
You will see the soldiers there,
Hear the drum and pass the fair:
Then you forget the way is long,
And how tired are your feet,
For the noise makes you, my son, think
When you go this way to the city on the hill."
—See *Prædicator* 177.

MECHANICAL AND SCIENTIFIC.

A German chemist says frozen cabbages or plants lose none of their nutritive qualities, because the frost transforms the starch in the vegetable into sugar.

Sir John Lubbock has made out that ants do not recognize ants of the same nest by any sign or password, though he thinks it impossible that in the case of nests containing 100,000 each all the ants know each other individually.

Carefully conducted soundings, made near the Faroe Islands, reveal the fact that while the surface water has an almost invariable temperature of 52 deg., the heat at great depths varies accordingly; at a depth of five hundred fathoms the temperature was 32 deg.—a fact which is explained by the supposition of a cold Arctic stream flowing from the northeast, and apparently coming between the fork of the Gulf Stream, though this explanation is not accepted by all investigators.

In a recent series of demonstrations at La Salpêtrière, Paris, Prof. Charcot has shown, inter alia, that it is possible to produce in one subject a state of catalepsy on one side of the body and a simultaneous state of lethargy on the other. The patient is first thrown into catalepsy by looking at the electric light (in this state the limbs are supple, and will retain any position one chooses to give them.) To produce the state of lethargy or somnambulism on one side, it is sufficient to close the corresponding eye, or shut off the light with a screen; the two states are then co-existent on the two sides of the body.

It is now proposed, by means of an invention recently brought forward, as described in the *American Manufacturer*, to drill oil wells without a derrick, to pump the sand out without removing the drill, and to test and pump the well, after it is completed, without removing the tubing. The drill employed is a hollow pipe, and is studded with diamonds, these latter obviating the necessity of removing the drill to sharpen the tools, as is the case with steel drills. It works with a rotary movement, instead of the chopping motion of the drills now in use, and this is considered a decided improvement. The pipe being hollow, the sand pipe runs inside of it, and, when the well is completed, the pipe is used for tubing, the oil being pumped through it.

According to the most recent submarine investigations, the average depth of the ocean is 2,000 fathoms, and it nowhere exceeds 5,000; within 300 or 400 miles of the shore formations are being laid down, derived mainly from the disintegration of shore rocks, but in the abyssal regions the sounding instrument brings up an extremely fine reddish clay, in great part amorphous, but containing, when examined under the microscope, quantities of distinctly recognizable particles, organic and inorganic. The organic particles are chiefly silicious; the inorganic are minute flakes of disintegrated pumice, and small crystalline fragments of volcanic minerals; and the amorphous residue is thought to be due, principally to the decomposition of volcanic products, and partly to the ultimate inorganic residue of decomposed organisms. There is ample evidence that this abyssal deposit is taking place with extreme slowness, and so far as is known, the deposit thus being formed at extreme depths in the ocean does not correspond, either in structure or chemical composition, with any known geological formation.—*N. Y. Sun*.

A Wrong Idea.

A great many persons have the idea that if they happen to have an infant, idiot or maniac that they wish to transfer to some distant point, they have only to leave the article at the nearest express office, after paying the charges or seeing it adorned with a "C. O. D." tag. At frequent intervals an item goes the rounds of the country press, stating that little Tommie Somebody, who was "ticketed through" by express from Kalamazoo to New York, arrived safely at his destination and was ascertained to have cut several teeth and gained half a dozen pounds during the journey. Of course he smiled when the reporter viewed him, and cackled when his aunt paid the charges, removed the tag, and lugged him away. Such an item is sure to be copied and to be read. The idea is a "taking" one, inasmuch as there is a sort of notoriety about it; and though there are not many persons who would care to transfer their infantile progeny by that method, there are great numbers who fancy that the express companies transport idiots and lunatics as well as infants, and who make application for

the transfer of such human packages. Frequent applications are made also for the transfer of unprotected young women by express.

The main offices in every city have such applications nearly every day, all of which are refused, because the companies do not accept such responsibilities. Occasionally an agent at some country office accepts such a package, but if it has far to go it is almost invariably detained by the agent at the first transfer office. A country agent somewhere in New Jersey not long ago accepted a lunatic, which was to be forwarded to a Maryland town. The insane package got as far as Easton, Pa., where it was stopped by the agent and sent back in charge of a robust employe to the place from which it started. The matter was reported to the general office in this city, and a letter was addressed to the New Jersey agent, instructing him not to receive human packages "unless properly boxed" by the undertaker, of course.

The reason given for not accepting the responsibility of transferring live persons are those which would naturally occur to any person thinking about it. In case of accident, the damage may be such that it cannot be repaired by the payment of money; the express cars have no conveniences for the transportation of such goods; and the agents are too busy at all transfer points to take care of helpless persons. They must keep an eye constantly on their safes, and they are therefore unable to lug infants to other cars, pilot idiots, hand maniacs, or escort unprotected young women. When applications for the carrying of such parcels are made at the express offices the persons applying are advised to place their goods in charge of a drawing-room car conductor, who usually has ample time to take care of them, and will do so for a reasonable consideration. Persons who are thus advised do not return again with a like application, but the average is kept up by applications from the ranks of millions who read at frequent intervals such fictions as the transfer of the smiling and cackling infant from Kalamazoo.—*N. Y. Sun*.

An Englishman Who Will Try to Reach the North Pole in a Balloon.

Com. Cheyne, of the British Royal Navy, is making efforts to get an expedition to reach the North Polar means of balloons. He is an experienced Arctic navigator, having served under Sir James Ross, and has secured the services of Capt. Templer, a well-known aeronaut. Com. Cheyne believes that the gulf stream sweeps around the Polar Basin, and returns by the north and east of Greenland as a great body of cold water. He proposes to utilize this current in the following manner: The ship would proceed up the Davis Strait and Baffin's Bay; then, turning to the west, would steam up Lancaster Sound and Queen's Channel to the furthest explored point. She would next take a northwesterly direction until the set of the current is felt, when the course would be altered to due north. In any case she would push through every available opening in the ice until her advance was definitely arrested by the advent of winter. In addition to the equipment of sledges, etc., she would carry several balloons, each capable of lifting a ton weight in addition to the men. When the ship became beset in the pack, three balloons would be inflated and joined together by means of three light spars sixty feet long. Thus a triangle would be formed, with a balloon at each angle, the whole together representing a lifting power of about three tons. This power would be employed in carrying the boat, sledges, provisions, tents, ballast, etc. Com. Cheyne proposes during the winter to establish two observatories about thirty miles apart, with the ship as center, so that by the end of May the balloons may start upon a course already ascertained with tolerable accuracy. By this means the distance of the vessel from the pole and the course to be followed being known, the travelers would be enabled to drop within ten or twelve miles of their destination. Wire trail-ropes would be used for preserving an equal altitude above the ice. When it was necessary to ascend, the gas would be preserved by recompressing it, by mechanical means, into the receivers, there to be held in readiness for future use. If the journey should have been successful and the wind favorable, the return trip would at once be made, the balloons being arrested on the parallel of latitude upon which the ship was left ice-blocked. The commanding officer in charge would send out sledge parties daily to meet the balloons and give whatever assistance might be required. On the breaking up of the ice the ship would leave her winter quarters and push around the northern extremity of Greenland. A second winter would here be passed, the time being spent in making a survey of the coast and other scientific observations. During the following summer, aided by the natural drift of the ice, the vessel would steam through every opening, and return home between the Continent of Greenland and Spitzbergen. Should no favorable wind arise, however, to carry him back from the pole to his ship, Com. Cheyne intends continuing his aerial journey, and trusts to good fortune to drop in Russia, wherever inhabitants are to be seen.—*N. Y. Tribune*.

The Colorado Central Railroad will be supplied with steel rails through the canyons during the summer.

Spring Poetry—A Word of Advice.

There need be no doubt in the mind of any reader of the *Free Press* that it is eager to secure odes to spring, idyls on April poems on May and black verse on green grass and budding vines. In fact, we keep a traveling man out all the year 'round looking after such things, and paying cash down in every case. The trouble is to get enough of such poetry to supply the demands of our readers. Having said this much in explanation, we call the attention of the public to the following solemn fact:

In December, 1860, a lady in Kansas forwarded as a poem on spring, to be laid away under a brick until the 26th of March. She died within fourteen days after mailing the poetry. Comment is needless.

In March, 1867, a student at Ann Arbor forwarded a poem of forty lines on the return of the robins. Before his robin had uttered three squawks, or the poem could be printed, the student was called home to see his sister die. Does any explanation seem necessary?

In 1873 a lady in Elmira, N. Y., sent on eight verses of beautiful poetry on "April Showers." About the time the letter-carrier was saying that there was six cents postage due on her letter she was falling off a bridge near her home. She never spoke after being pulled ashore and wrung out. Truly, the ways of Providence are mysterious.

Last year a lawyer in Cleveland sent as a poem and a half of blank verse on the voice of the blue bird and the starting grass. His verses reached us one rainy Thursday evening, when all Nature seemed bent on having a good old cry, and the voices of ward politicians came up from the Sixth Ward with hollow moan, and next morning the lawyer was found dead in his bed. The terrible look on his face showed that he must have suffered for hours and hours. The coroner's jury returned a verdict that the *Free Press* must be held blameless.

One short week ago a young lady of Western Michigan mailed us a beautiful ode to dying winter. The old man who buys all the waste paper from this office had scarcely made an offer of a cent and a half per pound for the beautiful ode when a dispatch arrived saying that the poor girl had been tossed on the horns of a cow and had gone to join the angels.

As stated at first, the *Free Press* is eagerly searching for spring poetry, and offering more pay than any other publication in this country, but it must be explicitly understood that we cannot be held responsible for the sudden death of the writers.—*Detroit Free Press*.

Some Hints About Sugar.

On an average, every man, woman and child in the United States consumes each about thirty pounds annually of cane sugar and nearly two gallons of molasses, beside maple sugar, honey and other sweets. Nineteen pounds of pure cane sugar is actually made up of, and can be changed into, eight pounds of charcoal and eleven pounds of water! Pure white starch is made up of eight pounds of charcoal (carbon) and ten pounds of water. Any boy can demonstrate this roughly by putting a quantity of sugar on a piece of thin iron over a hot lamp or coals, and hold over it a glass jar bottom up. The sugar will change to pure charcoal, while the water will rise up and condense on the inside of the jar if it be kept cool, and he will get nothing from the sugar but coal and water. The chemist can easily take the nineteen pounds of sugar and change it into eight pounds of charcoal and eleven pounds of pure water, though he has not yet learned how to put the coal and the elements of the water together to produce the sugar. That requires the action of the living plant. Our sugar comes mainly from the sugar cane grown in the Southern States (most from Louisiana), and from West India Islands. The canes are somewhat like our stalks, but larger, taller, with narrower leaves. The sap of juice is pressed out between iron rollers, then boiled down to syrup, which crystallizes into sugar grains in large vats. Most of the sugar used in Europe is from the juice of the sugar beet. It is similar to our cane sugar. The raw sugar is refined chiefly in Northern cities by dissolving it, straining it through cloth and through burned bones, after which it is boiled down until thick enough to crystallize in grains.—*American Agriculturist*.

A Marriage Office in Italy.

The "International Marriage Office" established in 1867, as it is termed, is now forwarding its didactic circulars to every miss or widow of assured expectations, particularly our fair countrywomen, whose addresses can be obtained from anyone disposed to do a little confidential business, for a suitable consideration, and to bestow the preliminary information. The office, therefore, is enabled to turn up its books and give any applicant of either sex a list of the charms of person and purse in its "line of goods" which it can offer, and by its well-appointed diplomacy to bring negotiations either way to speedy conclusions.

It rules require a statement of the fortune of the applicant, how invested, real address, portrait, rank, and every detail necessary to particularize the human merchandise, male or female, "freely guaranteed." These items duly booked, correspondence and interviews are promptly arranged between

parties who find on the list anything suited to their wants. There must be, however, a preliminary cash deposit to insure good faith and cover incidental charges. Fines are imposed for any tergiversation or neglect of directions, etc., but how these are to be collected the circular does not make quite apparent, although it emphasizes, very distinctly, the man is to pay the cost of all business done, doubtless out of the bride's money.

In evidence of the amount of happiness it has already executed or can bring about in doing the "work of God, on a commission of 5 to 10 per centum cash down," credit not to extend over the honeymoon, the office appends the statistics of the rank and position of the male applicants already posted in its archives, namely: 3 Princes, 60 Counts, 170 Barons, 269 great landed proprietors, 300 officers (military), 618 professors and office-bearers, 74 learned men and artists, 118 manufacturers, 740 merchants, 293 farmers, 1,200 professionalists (whatever these may be)—total, 3,888 male applicants of matrimony on the philanthropic business basis at the "International Office." Unfortunately, the report does not relate the number of matches effected and lots conveyed, perhaps out of fear of the Income Assessors.—*Florence Cor, Boston Herald*.

A la Truthful George.

Away at the southern end of Fourth avenue live two promising youngsters, whose father, being an upright and conscientious gentleman, has enduring admiration for George Hatchet and his little Washington. Of course he took his hopeful on his knees and told to him, as he trotted them to Barnaby Cross, the story of the evergreen and eternal cherry tree. In the course of events and time he thought him to make his two cherubs a present of a hatchet each, and in the course of events and time he discovered a cut on his cherished dwarf pear tree. Suspecting the culprit and calling his posterity to him, "Boys," he said, frowning glowingly, "who cut this pear tree?" And then he waited in suspense to see whether he had another Washington in his family. Posterity No. 1—"I did it, pa, with my little hatchet. I cannot tell a lie." Posterity No. 2—"No, he didn't pa; I cut it with my hatchet, and I'm the one that can't tell no lie." No. 3—"You didn't! I cut it myself." No. 4—"Whoopie! you didn't do no such thing!" No. 5—"Yes, I did, pa, for there wasn't but one pear tree, and we drew straws which told cut it and—pa!" No. 2—"And I drew the short straw and cut the—pa!" No. 1—"Ain't you ashamed! I drew the short straw and cut the tree, and you got mad and went off, and cut out our new cherry tree!" "The chickens?" No. 2—"Oo-oh! I didn't do no such thing! He cut it himself, pa." No. 1—"I did not, pa." No. 2—"You're a liar—a fibber!" And then the fond father took his posterity each by the nape of the neck and marched them to the carriage-house. The mournful rain that had been wrought there was harrowing to contemplate, and the sounds that went up from the carriage-house as the bride reins descended upon those boys excited the wonder of the neighbors and the chaotic cacklings of the chickens for two squares around. The father has confiscated the hatchets, and now declares that too much George Washington will demoralize any family.—*Louisville Courier-Journal*.

Why William Sharp Went to Bed.

The passion of love often reacts strangely on undisciplined minds, and frequently produces on them most unlooked-for results. At Keithley, at the beginning of the present century, lived a young man named William Sharp. He fell desperately in love with a girl, the daughter of a neighboring farmer. Everything went smoothly till the wedding morning, when the fathers could not agree how much to give the young couple to start them in life; and literally at the last moment in church the match was broken off. This was too much for the weak mind of William Sharp; he went home, went to his bed and never rose from it again. He was just thirty when he thus isolated himself from active life, and he died in his bed at the age of seventy-five. His room was about nine feet square. The floor was stone, and generally damp; the window was permanently fastened; some of the panes were filled with wood; and, at the time of his death, it had not been opened for thirty-eight years. In this dreary cell this strange being immured himself. He obstinately refused to speak, and gradually every trace of intelligence faded away. His father left an ample provision for his eccentric son, and he was well looked after. He ate as much as an ordinary day laborer, and at his death weighed sixteen stone. In Harrogate, several years ago, lived a woman who for the same cause behaved in exactly the same manner. Her parents having prevented her marriage with a worthless character, she took to her bed and had kept it for fifteen years, and, if not dead, is probably keeping it still.—*Chambers Journal*.

The proprietor of a popular restaurant in Berlin has instituted what he calls the dinner of the golden sage, the great attraction of which is the insertion in every thirtieth sausage designed for his guests of a small gold coin, which becomes the property of the individual to whose lot it chances to fall.

What People Did or Old in Times of Plague.

In the time of plague some carry toad powder, a toad, a live spider (inclosed in some convenient receptacle), arsenic or some such poisonous substance upon their persons, which they say attracts the infection of the air to themselves, which otherwise might attack the person who carries it. It is also claimed that this same toad powder attracts all the poison of a pestilential tumor. Receipt for toad powder: Take three or four large toads, seven or eight spiders and as many scorpions, put them together in an open crucible and allow them to remain for some time; then add virgin wax and seal the vessel well; cook quickly till all is dissolved, work it well with

