

23. Do the waters of the Mississippi river flow up hill?

24. If a man should start from the city of New York, at 12 o'clock on Monday, and travel directly west for 24 hours, at the rate of 15 degrees an hour, it is evident he would then have reached New York again. It was Monday 12 o'clock when he started, and has been midday to him during his journey; (the sun being in his meridian,) on his return to New York City it is Tuesday, 12 o'clock; at what point on his journey did it change from *Monday* to *Tuesday noon*?

25. Arrange in a square the numbers from 1 to 16, in such a manner that they shall amount to the same in each column, whether added perpendicularly, horizontally, diagonally, or taking any four of the numbers in the form of a square.

1	12	6	15
8	13	3	10
11	2	16	5
14	7	9	4

MAGIC SQUARES—AN EAST INDIA PUZZLE.

PUZZLE.—Take any odd number whatever—square it, and write the series of figures from one to the square of the number taken, in a square whose side is indicated by the number taken, in such a manner that the figures added horizontally, perpendicularly, or diagonally, shall equal the same sum.

EXAMPLE.—Take the number 5,—its square is 25,—write the figures from 1 to 25 in a square made up of twenty-five smaller squares in such a manner that, added perpendicularly, horizontally, or diagonally, the sum shall be the same, that is, one-fifth of the sum of the series of numbers, 1 to 25,—and so of the numbers 7, 9, 11, etc.

RULE.—Begin by placing 1 in the middle square at the top, then, in filling up, observe these directions according to the position of the square just filled, viz.: Proceed diagonally upward to the right, or if you can not do this go to the square on the opposite side of the parallelogram in the next line at the right, or next line above; or if you can not do this, take the square immediately below.

These figures can be varied in at least *four* different ways. If the number 7 be taken, they can be varied *six* different ways; if 9 be taken, they can be varied *eight* different ways,—perhaps more.

17	24	1	8	15
23	5	7	14	16
4	6	13	20	22
10	12	19	21	3
11	18	25	2	9