

though warmly clad in stockings and shoes or boots, feel cold more often than our hands which are entirely uncovered. If you ascend a ladder in a tolerably cold room, you are surprised at finding it much warmer above than below in the room. The flies take advantage of this in autumn, when they are seen to promenade on the ceiling, because then it is warm as in summer, while near the floor it is cold; owing to the circumstance that warm air, being lighter than cold, ascends.

Precisely the same takes place on the earth. In the hot zone near the equator the sun heats the air continually; hence the air then ascends. But from both the northern and southern hemispheres, cold air is constantly pouring towards the equator in order to fill the vacuum thus produced. This cold air is now heated also and rises, while other cold air rushes in after. By this continued motion of the air towards the equator, however, a vacuum is created also at both poles of the earth; and the heated air of the equator, after having ascended flows towards these two vacuums. Thus arises the currents in the air; currents which continue the whole year, and cause the cold air to move from the poles to the equator along the surface of the earth; while higher in the atmosphere the heated air flows from the equator back to the poles.

Therefore the air is said to circulate below from the poles to the equator, but above to go back from the equator to the poles.

He who is in the habit of noticing phenomena of nature, may often have observed something of the kind when opening the window of a room filled with smoke. The smoke escapes above while below it seems to come back into the room again.

But this is an illusion which has its origin in the fact, that above the warm air of the room goes out of the window and, of course, takes the smoke with it; below at the window however, cold air pours in from without, driving the smoke that is below back into the room. The attentive observer may also see how the two currents of air above and below move in contrary directions; while in the middle part they repel each other,

and form a kind of eddy which may be clearly perceived by the motion of the smoke.

What takes place on our earth is nothing different from this, and we shall see in our next article the great influence this has upon our weather.

QUESTIONS ON IRISH LITERATURE, &c.

1. What two great Irish names appear in the impeachment of Warren Hastings?
2. Contrast in a few words the speeches of Edmund Burke and Richard Brinsley Sheridan.
3. What tribute did the "great" Pitt pay to one of Sheridan's speeches delivered on the Case of the Begum of Oude?
4. On what does Sheridan's reputation rest?
5. With what reputation did Sheridan leave school?
6. Who was Oliver Goldsmith?
7. Name his principal writings.
8. Where does his ashes rest?
8. What great man, paid him this high tribute—"He left nothing untouched, and touched nothing without adorning it."

PREDESTINATION.

"Do you believe in predestination?" said the captain of a Mississippi steamer to a Calvinistic clergyman, who happened to be travelling with him. "Certainly." "And you also believe that what is to be will be?" "Certainly." "Well I am glad to hear it." "Why?" "I intend to pass that boat ahead in fifteen consecutive minutes, if there be any virtue in pine-knots and loaded safety valves. So, don't be alarmed, for if the bilers ain't to burst they won't." Here the divine began looking around for a life-preserver.

Why ought tailors to be good (matrimonial) matchmakers? Because they are so much in the habit of pressing other people's suits, and of coating them too.