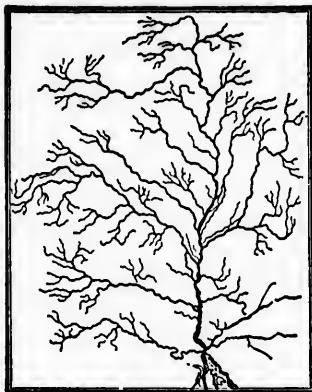


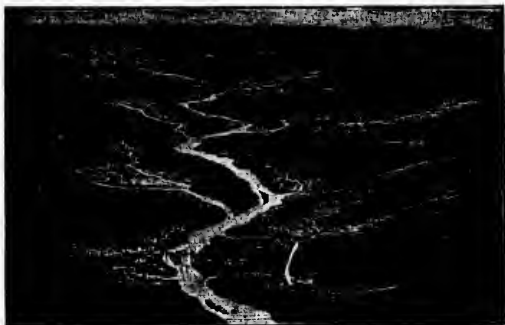


A River System.

branches, is called a river *system*.

When rain falls on the land, a great deal of it sinks into the ground and soaks away. If this water in sinking downwards meets a bed of rock or clay, it cannot sink deeper, but flows or trickles along the surface of this bed of rock or clay until it reaches the surface of the ground lower down where it bubbles out as a *spring*. Whenever you find a spring, you may be certain that the water bubbling out now fell some time ago, as rain, and has been flowing underground ever since. Why do springs often flow throughout dry seasons?

In ascending a river we should, probably, come at last to such a spring. The place where a river begins is called its *source*. Sometimes the source of a river is a spring, sometimes a marsh, sometimes a pond or lake, and sometimes the melting snow or ice of a glacier on the side of a mountain. Find the source of the Mississippi; of the Missouri.



A River Basin.

Missouri we shall find that it has many branches that are not shown on the map. If we go up these branches, we shall find that they, also, have smaller branches, and these have still smaller branches, until the streams are mere threads of water. A river, with all its

The land sloping towards a stream is drained into that stream. All the land drained by a river and its branches is called the river *basin*. Point out the basin of the river in the picture below. Trace on the map the basin of the Mississippi River.

After a rain you will find the water of the stream nearest you, muddy. Where does the mud come from? Rain washes particles of soil down the hill sides into the valley below and into the stream. Swift streams wash away part of the land through which they flow and carry it along with them. What will become of the hill in time, if this goes on? Rivers are continually carrying quantities of earth from the higher land. Why do they carry more in spring than at other seasons?

Put some earth into a glass of water and stir the water till it becomes muddy and then let it stand. What will happen to the earth? Sometimes the water in a river rises, overflows its banks, and covers the country on both sides with a shallow expanse of muddy water. When it does this, if it does not flow as fast as before, what will happen to the mud carried by the water? The land on both sides of the Mississippi near its mouth is covered many feet deep with soil left in this way by the river. The plain thus built up by the Mississippi or any other river is called its *alluvial* or *flood plain*. These flood plains are generally very fertile. Why?

When a river enters a lake, gulf, or sea, its current is checked and the earth which it has been carrying drops to the bottom. Gradually, the bottom is built up until a V-shaped tract of marshy ground is



A Delta.

formed, through which the river empties by several mouths. This triangular tract of land is called a *delta*. Most large rivers form deltas at their mouths and these deltas are continually extending farther.

Look at the picture on next page of two river basins. If rain falls on the rim between the two basins, which way will the water flow? Such a rim dividing two stream basins is called a *divide* or *watershed*.