

or objects that are cold enough to precipitate the moisture in the form of snow, and prevent it from melting after it falls. Such conditions are found in the Alps. The warm winds from the Sahara crossing the warm waters of the Mediterranean absorb so rapidly as to reduce that body of water much below the level of the Atlantic Ocean. Moving northward, these heavily laden winds encounter the lofty summits of the Alps, and the temperature of those high regions precipitates the greater part of the moisture in the form of snow. This snow does

cause some surprise when we remember that ice is so easily broken, but more careful thought will recall the bending of thin ice on a pond under the weight of a skater, or the peculiar mound of ice formed in a bowl of water that has frozen solid. Whether plastic or not, however, the movement of the ice mass is so fully what it would be if the ice were plastic that we can justify the use of pitch or molasses as an illustration of this movement.

FORMATION OF A GLACIER.

The laws of movement of this



SOURCE OF THE GLACIER.

not melt to any great extent, and as it accumulates it packs. Every one knows how a school-boy can pack a snow-ball until it is no longer snow, but ice. This, extended further, is precisely what the snow does on the Alps. At the top is snow; lower down is a white, granular mass, and still farther below it is ice; clear, solid, but with a bluish tinge.

The presence of the accumulated snow not only packs the mass into solid ice, but sets it in motion. The first conclusion reached after an extended study of glacial movement was that the ice is plastic. This statement may oc-

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The laws of movement of this ice stream are the same as those of a river. On the bottom and sides the friction of the particles retards the movement of the mass, but as they are nearer to the surface and the centre the particles find themselves more free to move against each other than against the river bed. Accordingly, the slowest movement will be at the bottom of the stream, while the swiftest movement will be at the surface, and generally over the deepest portion. The same is true of the ice stream. Gazing from the summit of some neighbouring peak, we can see the long line of the ice river, with its branches