

must make its way into the salt lake, for it lies, as I have already said, lower than any other lake in this part of Tibet. The trip I made across the lake is far from being sufficient to determine its area; but estimating it at 110 sq. km., and taking the mean depth at 1.6 m., this gives us a cubical capacity of 176,000,000 cub.m. If the river contributes, as it was doing then, 3,715,200 cub.m. in 24 hours, it would take 47 days to fill the lake, and the time would be shortened in proportion to the quantum contributed by the eastern stream, and any others that may enter the lake at other parts. If therefore the lake is to remain at the same level, then at least some 4,000,000 cubic meters of water must evaporate every day. In view of this active circulation, it is only natural that the salinity should be considerable, and it will go on increasing year after year.

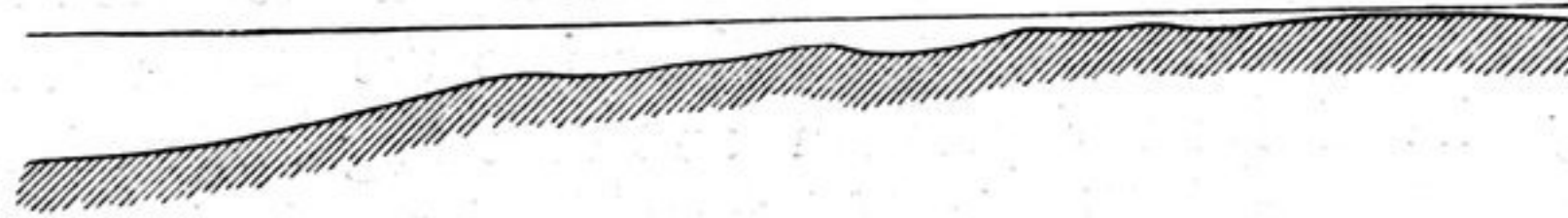


Fig. 84. WATER FLOWING FROM DEEP RIVER INTO SHALLOW LAKE.

The peculiar character of the lake indicates however that the whole of its water evaporates every year, so that in the spring all that remains must be the salt crust, though it does no doubt contain a few scattered pools of salt water. Since the lake requires an influx of 43 cub.m. per second to maintain its level unchanged, it would, if its inflow were to be cut off, dry up in a month and a half. The upper lake is fed entirely by glacier streams and rain. Both these sources of supply are sealed during the winter; and even if there is any precipitation at that season, it lies in the form of snow, and evaporates on clear days, or else goes to swell the earliest torrents of spring. At all events the upper lake derives no increment from perennial springs, or if it does the amount is infinitesimally small. The lake does, it is true, act as a regulator of its emissary, so that once a certain equilibrium is attained, this will remain pretty constant all the summer; but in the winter the volume must gradually approach a minimum, which may perhaps be equivalent to *nil*. That this must be so is easy to prove; for if we suppose both lakes to be of the same size, and if the lower lake becomes filled in 47 days, the upper lake would in that same period lose a volume of water equivalent to a layer 1.6 m. deep. But it is also to be remembered that the upper lake is in its turn also exposed to evaporation, and that both lakes need only drop 1.19 m., the measure of the deepest spot between the horns of the river estuary, for the connection between them to be severed. Meanwhile the upper lake, whilst it is being continuously fed, though at varying rates in consequence of the changeable weather, maintains during the summer at the same time, by means of its regulative influence, a steady and constant flow in the efferent stream. Even in the autumn, when the supply of water from the glaciers diminishes, and finally ceases altogether, the lower lake will always drop at a quicker rate than the upper lake, for while the latter then becomes frozen over, the salt lake always remains open, and so its evaporation goes on uninterruptedly. The presence of freshwater fauna in the upper lake proves that the salt water never under any circumstances penetrates into its basin.