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und the he river for the of 8 feet h below The following are the elevations referred to the datum assumed for the levels in connection with the survey:

Bed of river, Armstrong's Point 60.0	00
" " cross-section 22	24
" " Headingly 86.c	òc
General prairie level, section 22	00
Flood level of 1882, ""	00
" " 1850, " "	55
(The flood levels were pointed out by residents.)	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
Flood level of 1882, section 34 91.0	ίο
" " 1882, Headingly	0

At the latter point the flood of 1882 was observed by the undersigned, and it was well within the river banks. The high water shown on the lower cross-sections was occcasioned by back water from the Red River, to which stream the flooding was due.

It has been assumed for the purposes of this report that the level of water in the upper level for water power will be maintained at an elevation of 90.00.

The power to be obtained will therefore depend upon the difference between 90.00 and the elevation of water in the lower reach, which for the past season, at cross-section No. 17, it will be seen has varied from 64.8, ice level, during February and March, to 79.3 on the 26th April. The rise on the 26th April was only temporary and was caused by ice jams in the river. The highest water due to the normal flow of the river occurred on 3rd May and was 71.00, and on 18th May at that point the river had fallen to 68.5.

At an elevation of 90.00 for water in the upper reach the approximate quantity of land which will be overflowed beyond ordinary high water mark is only 100 acres. Contour lines at elevations of 90.00 and 95.00 are shown on the plan.

Volume of Discharge of the Assiniboine River.

The gaugings used in computing the discharge were taken at crosssections 5 and 7 and 21 and 22.

The observations for velocity were taken by wooden discs, 4 in. in diameter, 3% in. thick.

At the points of observation parallel cross-sections were staked out, and the time of the passage of the discs between them was noted.

While it would have been more satisfactory to have taken the observations with a current meter, the above described method is sufficiently accurate for present purposes.