

is mixed in the order given: Water, 60 oz.; sulphuric acid, 1 1-2 drachms; sulphite of soda (crys.), 2 oz. When dissolved add hyposulphite of soda, 1 pound; and water to make 80 oz. This bath remains clear after frequent use, does not discolor negatives, forms no precipitate and hardens the gelatine to such a degree that they can be washed in warm water.

Frank Lewis.—For focusing in dark interiors use a ground glass with about a square inch unground in the centre, or rub on a little vaseline.

Peterborough.—To use pure magnesium powder without a lamp, sprinkle twenty grains or a teaspoonful lightly and evenly over one or two layers of flash cotton which has previously been picked into a flaky condition, free from lumps and bunches, taking care that the bottom layer is thick enough to prevent the powder from filtering through. When ready to expose, ignite the cotton with a fuse and keep well away from the flame which is very hot. For this reason it should be set off on a metal plate or a piece of asbestos board.

R.M.S.—The developer you speak of is glycin, and is specially suitable for reproductions or for photo-mechanical processes. You will find metal-xydrochinon preferable and more easily obtainable.

Harry Waiker.—From the appearance of the print you send I should say the negative is undeveloped. You do not tone far enough in the platinum. You can't overdo it.

Arthur Boucher.—If you had used an orthochromatic plate your clouds would have been much more distinct. Otherwise your work is very fair, and shows signs of some care.

Lenses.—A plano-concave lens is plane on one side and concave on the other. A double concave has both sides concave. A concavo-convex has one side concave and the other convex, as its name implies. Depth of focus in a lens is the same for all lenses of the same focus working at the same aperture. Focal difference is the difference in the length of the chemical and optical foci. From the appearance of the prints you send it would be better if you were to spend more time in the elementary rules of photography until you have thoroughly mastered them.

The largest herd of American buffalo is the Allard-Pablo, consisting of about 290, and located on the Flathead Indian reservation in Western Montana.

With the Birchbark Through the Backwoods

By Lieut.-Col. Andrew C. P. Haggard, D. S. O.

O ma ole canoe, wat's matter wit' you, an' w'y was you be so slow,
Don't I work hard enough on de paddle,
an' still you don't seem to go.
No win' at all on de fronte side, an' current she don't be strong,
Den w'y are you lak' lazy feller, too sleepy for move along?

—Drummond.

One summer's day I was, with my French-Canadian guides, my provisions and my birch bark canoe, following the pretty but execrable road which was to lead me to the banks of the mighty Ashuapmouchouan, at a point some miles above its mouth in Lake St. John.

Three excellent and picturesque trout rivers were crossed on the journey. These were the Oulatchuaniche, the Iroquois River and the Riviere a l'Ours, the waters of every one of which looked so inviting that it was a difficult matter not to descend at each in turn, embark in the canoe and angle in the enticing waters for an hour or two. Such longings, however, had to be sternly repelled, and I was, while pursuing my switch-back like career up and down hills much resembling the roofs of houses, constrained to content myself with admiration for the beauty of the woods just beginning to assume their autumnal tints, the brilliant vermillion of the rowan trees, the graceful festoons of trailing hops in the fences of the French "habitants" houses, and the pretty chalet-like dwellings of these French-Canadian settlers themselves. Above all, as I viewed the smiling fields of wheat, oats and barley nestling in between the shady surroundings of primeval forest, I was compelled to admire the industry and excellent farming of the "habitants" in this newly-settled northern part of the Province of Quebec. For, although every inch of cultivated land has been but recently cleared from the forest, many of the fields were as bare of the disfiguring blackened stumps so common in Canada as though they had been English arable lands under cultivation for centuries. After passing through the long and prosperous parish of St. Prime, where there is a large wooden

Catholic Church and a large school-house, the road became vastly better, and soon our eyes were gladdened by alternate peeps over the cleared lands of the brilliant blue waters of La'ce St. John, far away to our right, and of the dancing stream of the mighty "river where the moose wander," deep down in a valley not far away to our direct front.

Shortly before nightfall we arrived at the pretty village of St. Felicien, where we passed the night at a very clean but expensive little French pension. The canoe, two little tents and the stores were sent on a few miles up the river that same night, under charge of Alfred Perron, one of the guides, and on following them next morning we found that they had arrived safely, and the tent standing snugly in a little forest clearing just above a magnificent waterfall stretching across the whole river.

Fishing in the first eddy on the lower side of the waterfall, I immediately hooked, and after a good fight landed, a fine "ouananiche," who was frizzling in the frying pan on the camp fire ten minutes after he was landed.

While the guides were loading up the canoe, I caught two more fish, a dore and another ouananiche, and then embarked in my canoe. But even before we had left the shore we found that the canoe was leaking, when, upon enquiring if the men had, as they ought to have done, brought the necessary pine gum and resin for caulking the seams, I found they had omitted to do so. There were no pine trees at hand whence they could obtain the turpentine required, but there happened to be lying close by an old canoe, bottom uppermost. From the seams of this canoe the hot sun was causing the pine gum to flow in drops like long icicles down the sides. Collecting all of this wasted resin with our knives we melted it in a frying pan and temporarily repaired our craft, taking all the gum we had to spare with us, and often, indeed, we wanted it.

Seeing how very often the guides forget to take this most necessary pre-