

LACROSSE—PHOTOGRAPHY.

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The lacrosse season ended early this year, owing to the fact that outside of the colleges there was only one team, and when examinations commence college teams have little time to practice, and as a result are not anxious to play.

The intercollegiate champion for this year is Lehigh. It well deserves the honor, for without doubt this team played better lacrosse than it has in many seasons.

Stevens, a close second, was but little inferior, the style of playing being about the same, though not so fast as that of Lehigh.

All the college teams suffered defeat at the hands of the Crescents, who, though having their hardest work cut out by Lehigh, succeeded in defeating them 8 to 3 after a most

exciting contest, and thus won the "Toronto Cup" for this year.

To the lovers of lacrosse by far the most interesting game played this year was between the Crescents and Toronto University, the latter winning by 8 to 5.

Lacrosse at the Crescent Club has become quite a society event, and to such a degree of popularity has it grown that all the games are patronized extensively, the Toronto game bringing out about two thousand spectators.

Next year will be an important one in lacrosse, and its patrons need not be surprised if international games should result, for England and Ireland both boast teams little inferior to our Canadian neighbors

But this is a mere suspicion.

LIONEL MOSES.

PHOTOGRAPHY.

THE BATTLE OF THE BATHS.—I have already spoken of the advantages of the combined bath, but like most other questions, it comes up again and again, and at the present time is being fought as hard as ever. Nor is it difficult to understand why it should be so. Although photography is essentially a chemical operation photographers generally professionals as well as amateurs, know little or nothing of chemistry, and unthinkingly, or rather thinking wrongly that the makers of sensitized paper know best what is best for their paper, employ for fixing and toning mess mixtures that fill the pores of the paper with the seeds of decay, that sooner or later, must induce fading, and that neither hypo nor water will remove.

In the too frequently recommended messes, including hypo, alum, gold, lead, etc., and especially when salts of silver are added by the immersion of prints in the solution, decompositions and recompositions occur to such an extent as to defy even an accomplished chemist to say what may be their ultimate composition, or what may or may not be left in the finished print, and therefore no photographer who has any respect for his character, or, if he be a professional, who wishes to retain his customers, should ever use them.

To the professional photographer who tones and fixes a large number of prints daily, the question of convenience and other advantages of the combined bath are not very material; but to the amateur who prints only a few copies now and then they are very great. He may, for instance, make up enough to last him for a whole year; pour into a tray enough to well cover the few prints he wants to fix and tone, get any color he desires and then return it to the bottle to be ready for the next time; and that, provided the bath has been properly made, with the perfect certainty that his prints are in every way as good as if he had employed the separate solution method.

"The battle of the baths" then is simply the battle of the two sides of the shield. An improperly made combined bath—and almost all that are in present use are such—is an abomination, but one that is properly made is more convenient, more economical, gives equally

permanent and equally beautiful results, and is in every respect better than any system of separate toning and fixing.

I have experimented with almost every brand of printing-out paper that has been introduced, and say most emphatically that almost any desired tone from warm brown to a purplish black may, with suitable negatives and suitable printing, be produced on any or all of them in a bath containing only sodium hyposulphite and gold. An exact formula is a matter of little importance, so long as there is sufficient of the one to fix and of the other to give the colors, the difference between weak and strong solutions being simply a question of time. The formula I generally employ has served me faithfully for every forty years, and is as follows: Sodium hyposulphite, 1 ounce; gold chloride, 1 grain; water, 8 ounces.

Dissolve the hypo in six ounces of the water and the gold in the remaining two ounces. Neutralize the latter with sodium carbonate and add it to the former.

The prints may be placed in the bath either with or without washing, but I almost always do the latter, and when the desired color is reached, which may be in a few minutes, or in an hour or more, depending on the temperature and the color desired, transferred to a solution of common salt, say, a handful to the gallon.

The bath, as I have said, will keep indefinitely, but must be discarded as soon as the gold is exhausted, which will probably be after having toned a sheet and a half of paper; say, twenty-five cabinets for the darker tones, and half as many more in warmer colors.

To those who may not have the convenience, or who do not care to take the trouble of weighing and measuring the following formula will be acceptable, and give a combined bath sufficient to fix and tone prints equal to from four hundred to six hundred cabinets: Sodium hyposulphite, 1 pound; gold chloride, 15 grains; water, 1 gallon.

Dissolve the pound of hypo as it comes from the stockhouse in the water, leaving out an ounce or two in which to dissolve the 15-grain bottle of gold, which, when neutralized by sodium carbonate, add to the hypo solution.

JOHN NICOL.