3. From a great number of numerical data, the following are presented:

(*a*) The Effect strongly increases with increasing length of the capillary connecting piece, *viz.*, the strip of paper.

(*b*) Previously wetting the paper with the solution likewise causes a strong increase of the Effect.

(*c*) It is not the transversal fineness of the pores of the paper, but rather the longitudinal capillary, *i. e.*, highly developed fibrillary structure of the paper which gives the maximum effects; soft, absorbent paper acts better than hardened, dense paper. Improvement is also attained by reducing the diameters of the capillary tubes by partially filling the spaces with highly dispersed precipitates, *e. g.*, $BaSO_4$.

(*d*) The Effect is obtained not only with electrolytes ($FeCl_3$, $AlCl_3$, $BaCl_2$, KCl), but also with non-electrolytes (Sugar, Urea).

(*e*) The Effect increases parallel with concentration; initially it increases with good approximation linearly with concentration. In the case of Urea, the concentration curves of increases of level are curved faintly convex toward the concentration axis, which is in accord with the concentration curves of osmotic pressure of concentrated molecularly dispersed and colloidal solutions.

(*f*) The Effect has a small positive temperature coefficient.

4. The problem as to the nature of the driving forces in the observed phenomenon is investigated.

It is shown that there are at least three sources of energy sharing in the production of the effect:

(1) Hydrostatic forces in capillaries; *Capillary siphon effect.*

(2) Diffusion in capillaries: *Diffusion-siphon effect.*

(3) Osmotic attraction of liquids in capillary systems: *Capillary Osmosis.*

All three forces come into play:

At the beginning of the phenomenon, the *hydrostatic effect* is dominant, then appear *diffusion* and *capillary osmosis*, and toward the end, again *hydrostatics* terminates the process.

5. Brief reference is made to the significance of the Effect in geological movements of liquids (subterranean water courses), the theory of swelling, and in biological movements of liquids.

ABSTRACT OF A PAPER BEFORE SCIENTIFIC SECTION, A. PH. A.

"Chemical Examination of Some Urographic Preparations," by George W. Collins.

Several years ago, Rowntree and his associates demonstrated that following the injection of sodium iodide solution introduced through the ureter, radiographic visualization of the pelvis of the kidney, the ureter and the bladder, pyelograms could be made. Subsequently, many iodine compounds, both simple and complex have been prepared and tested for their roentgenologic usefulness. The author reports the findings of chemical examinations of two different specimens of Iopax, also the examination of a third specimen of the product by a disinterested consulting laboratory. Several points of interest are brought forth in the investigation, including petrographic data confirming the chemical findings. A report is made of an examination of another urographic preparation known as Skiodan. Chemically, these products differ markedly. Iopax is the sodium salt of an acid derivative of an iodized oxo-aminopyridine, containing 42 per cent iodine in organic combination; while Skiodan is the sodium salt of mono-iodomethane sulphonic acid and contains 52 per cent organically combined iodine. The evaluation is made of tests and standards for the identity, purity and assay of these two preparations. In addition, there is a résumé of three other iodized products recently introduced and used in pyelography.