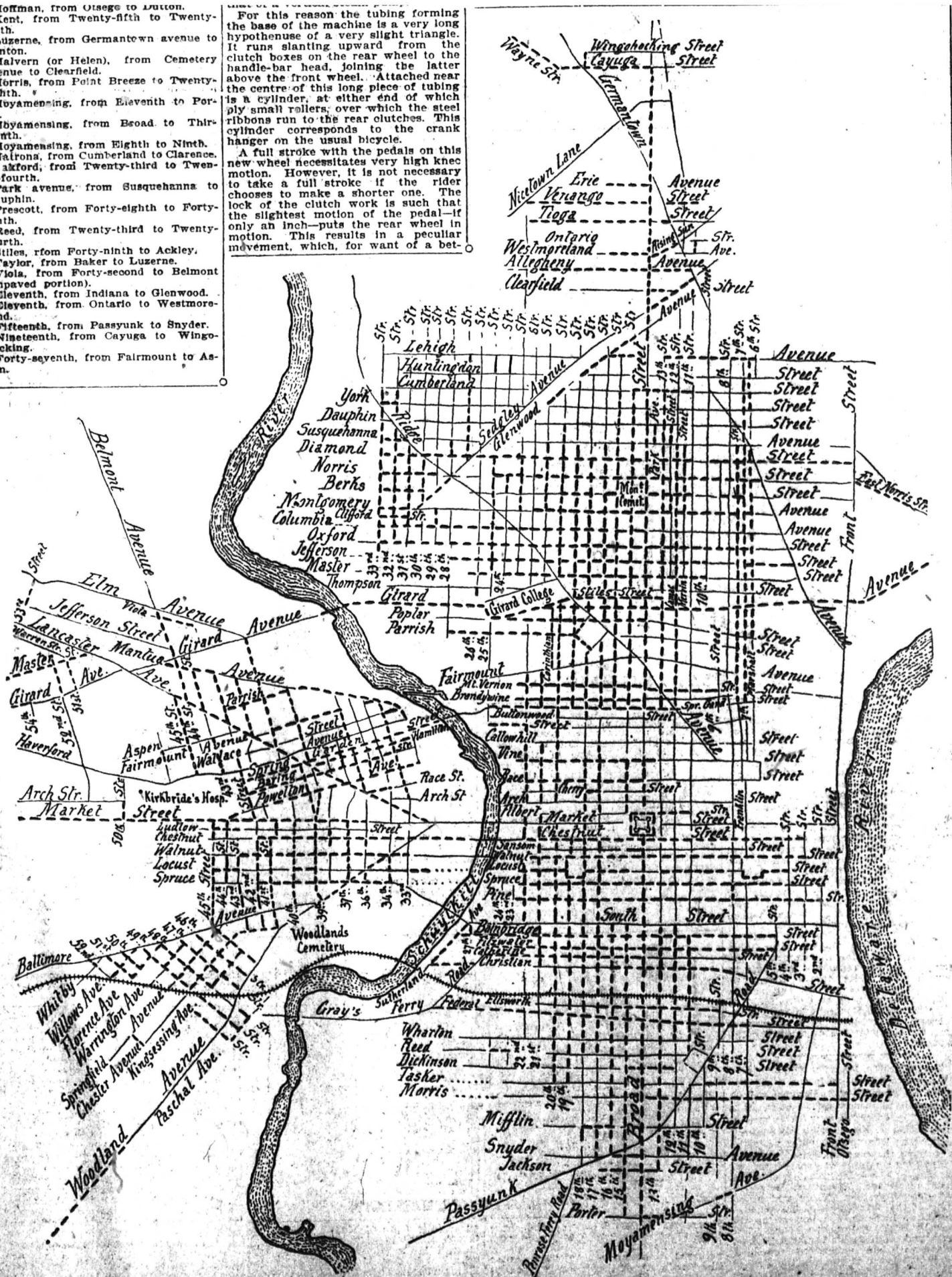


Hoffman, from Olusego to Linton.
 Kent, from Twenty-fifth to Twenty-sixth.
 Luzerne, from Germantown avenue to Clinton.
 Malvern (or Helen), from Cemetery avenue to Clearfield.
 Morris, from Point Breeze to Twenty-eighth.
 Moyamensing, from Eleventh to Porter.
 Mbyamensing, from Broad to Thirtieth.
 Moyamensing, from Eighth to Ninth.
 Nafrons, from Cumberland to Clarence.
 Oakford, from Twenty-third to Twenty-fourth.
 Park avenue, from Susquehanna to Dauphin.
 Prescott, from Forty-eighth to Forty-ninth.
 Reed, from Twenty-third to Twenty-fourth.
 Stiles, from Forty-ninth to Ackley.
 Taylor, from Baker to Luzerne.
 Viola, from Forty-second to Belmont (unpaved portion).
 Eleventh, from Indiana to Glenwood.
 Eleventh, from Ontario to Westmoreland.
 Fifteenth, from Passyunk to Snyder.
 Nineteenth, from Cayuga to Wingohocking.
 Forty-seventh, from Fairmount to Aspen.

For this reason the tubing forming the base of the machine is a very long hypotenuse of a very slight triangle. It runs slanting upward from the clutch boxes on the rear wheel to the handle-bar head, joining the latter above the front wheel. Attached near the centre of this long piece of tubing is a cylinder, at either end of which ply small rollers, over which the steel ribbons run to the rear clutches. This cylinder corresponds to the crank hanger on the usual bicycle.
 A full stroke with the pedals on this new wheel necessitates very high knee motion. However, it is not necessary to take a full stroke if the rider chooses to make a shorter one. The lock of the clutch work is such that the slightest motion of the pedal—if only an inch—puts the rear wheel in motion. This results in a peculiar movement, which, for want of a bet-



A BIRD'S-EYE VIEW OF PHILADELPHIA'S ASPHALTED STREETS: THE LATTER INDICATED BY STROKE LINES.