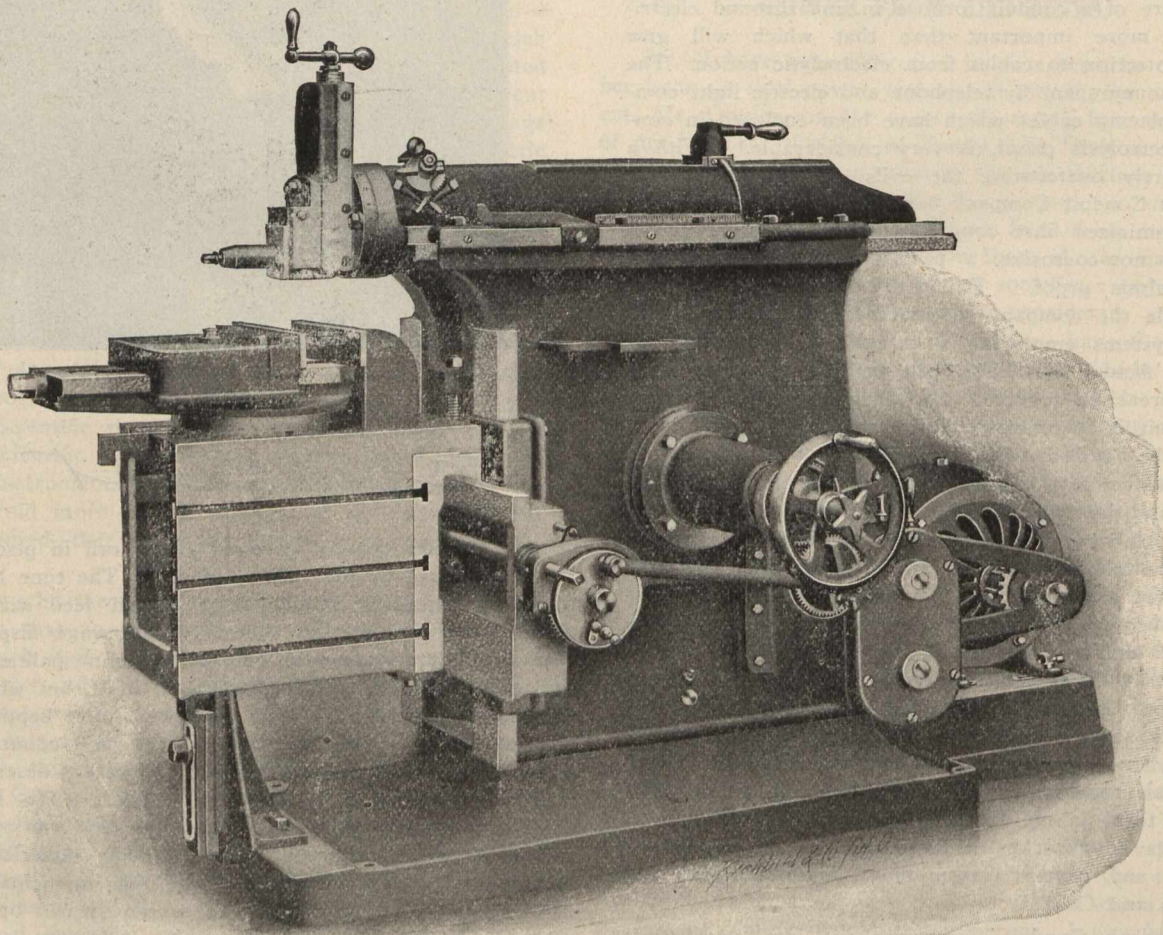


tion devote his time to politics. At the first session Mr. George M. Ballard spoke on "Municipal Taxation." He recommended that the laws permitting exemptions should be repealed because taxes should be assessed against all alike. Real estate should be first assessed so that proper equalization might be determined and then betterments could be considered. All personal property should be taxed. Street Commissioner John Jones, of Toronto, chairman of the committee on the disposal of garbage, and on street cleaning, discussed the methods employed in Toronto for destroying garbage. He stated that a garbage destructor, costing \$5,000, was being used, the capacity of which is sixty tons, and the cost of operation 20 cents per ton. Superintendent of Heney Park, G. A. Parker, of Hartford, Conn., and chairman of the committee on parks, insisted that parks are absolute necessities in city life, and that the park area in cities is entirely too small. He called attention to Ottawa, Ont., as a city of model parks. A number of other papers were read, including "Sanitation of Public Buildings," by Professor Burridge, of Purdue University; "The Records of the City Electrician," by A. S. Hatch, engineer of the Lighting Commission of Detroit; "Have Improvements in Arc Lighting Kept Pace with Other Municipal Improvements?" by H. W. Hillman, of the General Electric Company; "The Perviousness of Sewers," by Professor Folwell, of Easton, Pa. G. M. Ballard, of Newark, was elected president for the ensuing year. The other officers include E. G. Barrow, Hamilton, Ont., 3rd vice-president, and Alcide Chausse, Montreal, Que., member of the financial committee.

THE "AMERICAN" SHAPER.

The accompanying illustration shows the new 28-inch "American" shaper, motor driven through speed box, just brought out by the American Tool Works Co., of Cincinnati,



O. The motor employed may be of any type, constant or variable speed, single or multiple voltage. It is mounted on a substantial extension to the base at the rear of the machine, and may be readily connected to the speed variator by gear or silent chain. The "American" speed variator,

taking the place of the cone pulley is of simple and powerful construction, requiring only six gears for the mechanical speed changes. These changes of speed are obtainable instantly while the shaper is in full operation, by an improved form of patent clutch and lever mechanism, the levers being conveniently located. The number of speeds thus obtained is of course doubled by means of the back gears. The whole is encased in a neat and symmetrical box, with provision for easy access to working parts, and ample means for lubrication. The necessary adjustment for any desired speed can be readily determined by reference to a convenient index on gear box. This machine is also suited to belt drive from countershaft, through single pulley mounted on an extension of the upper shaft in the gear box, and the unusual flexibility of this construction makes it a simple matter to convert a machine thus installed as a belt driven shaper, into a motor driven shaper at any future time. The stroke of the ram is positive, and its length may be changed at will, without stopping the machine. Rocker arm is pivoted near the base line, giving the ram an almost uniform rate of speed its entire stroke, and providing an exceedingly quick return. Cross feed is variable and automatic, with wide range of feeds, and readily adjusts itself to any elevation of the rail. Reverse of feeds is easily accomplished, without stopping the machine. This shaper was designed for strength and capacity for continuous hard service at fast speeds and heavy feeds. Further information will be cheerfully furnished by the makers.

THE BERLIN-ZOSSEN ELECTRIC HIGH SPEED RAILWAY.

In view of the record speeds in electric traction recently obtained on the Berlin-Zossen military railway—the highest recorded being at the rate of 130.25 miles per hour—the following details supplied by the "Electrical Engineer," London,

England, will be of interest. The first experiments on this railway were made two years ago, but since then the track from Marienfeldt to Zossen has been relaid with new steel rails weighing 86.1 lb. per lineal metre, resting on heavy spruce ties 22-in. from centre to centre, and heavily ballasted