der with projections which come in contact in due order of time with the respective levers which work the shed. In the example, the pattern-cylinder shaft is free at one end to admit of changing the cylinder readily for changing the pattern. The graduation in the sizes of the pulleys placed in series on the same shaft allows a true vertical pull upon each of the jacks, which are arranged side by side beneath.

Pat'tern-cyl'in-der. (Weaving.) A means of operating the harness of a loom by means of a cylin-

