A pair of left and right hand rocker arms 34, 36 is received on the arms 24 of each support member for rocking motion thereon in individually defined planes. The rocker arms are each formed from a single sheet of metal and comprise parallel inner and outer sides 38 and 40, respectively, connected by a bottom wall portion 42. Openings 44 are provided intermediate the ends of inner wall portions 38 through which arms 24 are received into the interior of the rocker arms extending into engagement with the outer side walls 40.

Adjacent openings 44, bearing surfaces 46 are provided on upwardly arcuate formed portions intermediate the ends of lower walls 42. These bearing surfaces are received on bearing portions 26 of arms 24 and provide for rocking motion of the rocker arms on the supports. Lower walls 42 include at one end thereof actuating portions 48 which contact the outer or actuating edges of the valves in their opening directions. Coil springs 50 are interposed between the valves in their closing directions and tend to rotate rocker arms 36 in a counterclockwise direction, as shown in FIGURE 1.

At their ends opposite from the actuating portions, the rocker arms include downwardly facing spherical push rod receiving portions 52 having a lubricating opening 54 therethrough. A hollow push rod 56 actuated by cam shaft means (not shown) engages the receiving portion 52 of each rocker arm and includes a lubricating passage 58 in the end thereof which is in continuous communication with opening 54 in the rocker arm. By this means, lubricant may be fed through the hollow push rod and openings 58 and 54 to lubricate the bearing surfaces 46 and 26 of the rocker arms and support arms, respectively.

Unique retainer means 60, preferably formed from a single piece of sheet metal, are associated with the rocker arms and support members and serve the dual purposes of properly aligning the support members on the cylinder head of each bank and retaining the rocker arms in position on the arms of each support member. Retainer means 60 include a main body 61 which is secured between the support members 20 and cylinder head 14 and extends between at least two adjacent support members. Spaced parallel side portions 62 extend upwardly from the main body 61 and engage opposite faces of the support rectangular leg portions so as to align the support members with their arms extending longitudinally of the cylinder head. Such an aligning arrangement permits the use of single bolt means for securing each support member to the cylinder head, thereby simplifying the valve gear construction. The retainer means also includes a plurality of resilient fingers 64 which extend upwardly from the ends and intermediate portions of the main body 61 and include projections 66 which engage the outer sides of rocker arms 34, 36, holding the rocker arms in their proper positions on the arms of support members 20.

It is to be understood that the various disclosure relates to only a preferred embodiment of the invention and that it is intended to cover all changes and modifications which do not constitute departures from the spirit and scope of the invention.

1. Valve gear for an internal combustion engine comprising
   a plurality of T-shaped supports secured to said engine in linearly spaced relation, each said support including a leg portion and a pair of oppositely extending arms,
   a pair of rocker arms retained on the extending arms of each support for rocking motion in separate planes and
   a unitary retainer means extending between and engaging at least two of said supports to at least partially position them, said retainer means including
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3. a plurality of resilient fingers engaging said rocker arms at their outer ends to retain said rocker arms in position on said supports.

2. The combination of claim 1 wherein each of said rocker arms includes spaced sides connected by a formed bottom having an upwardly facing arcuate bearing surface intermediate the ends thereof, one of said sides having an opening adjacent said bearing portion, said support arms extending through said rocker arm side openings and contacting the other sides to locate said rocker arms axially of said support arms and said support arms including bearing receiving surfaces in contact with said rocker arm bearing portions, said resilient fingers contacting said rocker arms other sides opposite the outer ends of said support arms.

3. The combination of claim 1 wherein said supports are secured to said engine by single securing means and said retainer means comprise a formed sheet metal body secured between said supports and said engine and including pairs of spaced side portions extending perpendicular to the main portion of said body and engaging the leg portions of said supports to prevent their rotating around said single securing means.

4. The combination of claim 2 wherein said supports are secured to said engine by single securing means and said retainer means comprise a formed sheet metal body secured between said supports and said engine and including pairs of spaced side portions extending perpendicular to the main portion of said body and engaging the leg portions of said supports to prevent their rotating around said single securing means.

5. The combination of claim 4 wherein said supports each include single opening means extending linearly through said leg portions and said securing means comprise single bolt means extending through said opening means.

6. The combination of claim 2 and further including spring means associated with each of said rocker arms and resiliently biasing one end thereof against rocking motion in one direction, said rocker arm other end including a lubricating opening connectable with a source of lubricant supply to transmit lubricant to said formed bottom for lubricating said arcuate bearing surface.

7. Rocker arm support arrangement for an internal combustion engine having at least four passage controlling valves,

4. a plurality of rocker arms associated one with each of said valves and mounted for rocking movement in individual planes to control the opening and closing of said valves, said rocker arms being arranged in pairs,

a plurality of supports secured to said engine, one carrying each said pair of rocker arms and fixing the planes of said rocking motion with respect to said engine, and

a unitary retainer extending between at least two of said supports and engaging said supports so as to fix their angular orientation with respect to said engine, said retainer including a plurality of extending fingers engaging said rocker arms to retain them in place on said supports.

8. The combination of claim 7 wherein said supports include a central leg portion integral with a pair of oppositely extending arms, said rocker arms being carried on said support arms and having outer sides engaged by said fingers, said central leg portions having single openings extending therethrough, said supports being secured to said engine by single securing means extending through said openings.

9. The combination of claim 8 wherein said central leg portions include flat portions which are engaged by upstanding side portions of said retainer to position said supports.

10. The combination of claim 9 wherein said supports are formed of sintered iron.

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