and intermediate arm respectively, the intermediate zone being positioned adjacent to the first zone.

[0011] Where the mortice lock assembly includes a bolt movable relative to the housing between an extended position and a retracted position, it is preferred that the first arm configured to interact with bolt to move it from the extended position towards the retracted position on rotation of the first cam in one direction, and the first arm configured to interact with the abutment formation on rotation of the first cam in an opposite direction. It is preferred that the first arm and latchbolt are configured to prevent interaction of the first arm with the abutment on rotation of the cam in said one direction. It is further preferred that the first arm is configured so that interaction with the abutment formation causes adjustment of the lock means from the inactive condition to the active condition only. It is still further preferred that the intermediate arm is configured to interact with the abutment formation on rotation of the cam in said opposite direction so as to cause adjustment of the lock means from the active condition to the inactive condition only. The abutment formation preferably includes a first shoulder in the first zone and intermediate zone, the first shoulder having an upper surface that is engaged by the first arm and a lower surface that is engaged by the intermediate arm.

[0012] The combination may also include a second cylinder lock assembly or turnsnib including a second cam with a second arm, rotation of the second cam moving the second arm in a second plane parallel to the primary plane, the abutment formation having a second zone adjacent the intermediate zone for interacting with the second arm. It is preferred that the second zone also includes a first shoulder.

[0013] According to another aspect of this invention there is provided a mortice lock assembly in combination with a first cylinder lock assembly and a second cylinder lock assembly or turnsnib each attached to the mortice lock assembly, the first cylinder lock assembly having a first cam with a first arm and an intermediate arm, the second cylinder lock assembly or turnsnib having a second cam with a second arm, rotation of the first cam moving the first arm in a first plane and the intermediate arm in an intermediate plane parallel to the first plane, rotation of the second cam moving the second arm in a second plane parallel to the first plane, the mortice lock assembly including a housing, a lock means in the housing that is

THE CLAIMS DEFINING THE INVENTION ARE AS FOLLOWS:

1. A mortice lock assembly for use with a first cylinder lock assembly having a first cam with a first arm and an intermediate arm, and a second cylinder lock assembly or turnsnib having a second cam with a second arm, the mortice lock assembly including a housing, a lock means within the housing that is adjustable between an active condition and an inactive condition, the lock means including a sliding member that slides relative to the housing to adjust the condition of the lock means, the sliding member including an abutment formation having a first zone, a second zone and an intermediate zone for interacting with the first arm, second arm and intermediate arm respectively, the intermediate zone being positioned between the first zone and the second zone.

2. A mortice lock assembly according to claim 1 wherein the first zone, second zone and intermediate zone include an upper shoulder.

3. A mortice lock assembly according to claim 2 wherein the first zone and second zone includes a lower shoulder.

4. A mortice lock assembly in combination with at least a first cylinder lock assembly, said first cylinder lock assembly having a first cam with a first arm and an intermediate arm, rotation of the first cam moves the first arm in a first plane and the intermediate arm in an intermediate plane parallel to the first plane, the mortice lock assembly including a housing, a lock means in the housing that is adjustable between an active condition and an inactive condition, the lock means including a sliding member with an abutment formation which interacts with the first cam, the abutment formation having a first zone and an intermediate zone to interact with the first arm and intermediate arm respectively, the intermediate zone being positioned adjacent to the first zone.

5. A combination according to claim 4 wherein the mortice lock assembly includes a bolt movable relative to the housing between an extended position and a retracted position, the first arm configured to interact with the bolt to move it from the extended position towards the retracted position on rotation of the first cam in one direction, and the first arm configured to interact with the abutment formation on rotation of the first cam in an opposite direction.

6. A combination according to claim 5 wherein the first arm and latchbolt are configured to prevent interaction of the first arm with the abutment on rotation of the cam in said one direction.

7. A combination according to claim 5 or 6 wherein the first arm is configured so that interaction with the abutment formation causes adjustment of the lock means from the inactive condition to the active condition only.

8. A combination according to any one of claims 5 to 7 wherein the intermediate arm is configured to interact with the abutment formation on rotation of the cam in said opposite direction so as to cause adjustment of the lock means from the active condition to the inactive condition only.

9. A combination according to any one of claims 4 to 8 wherein the abutment formation includes a first shoulder in the first zone and intermediate zone, the first shoulder having an upper surface that is engaged by the first arm and a lower surface that is engaged by the intermediate arm.

10. A combination according to any one of claims 4 to 9 including a second cylinder lock assembly or turnsnib including a second cam with a second arm, rotation of the second cam moving the second arm in a second plane parallel to the first

plane, the abutment formation having a second zone adjacent the intermediate zone for interacting with the second arm.

11. A combination according to claim 10 wherein the second zone includes a first shoulder.

12. A mortice lock assembly in combination with a first cylinder lock assembly and a second cylinder lock assembly or turnsnib each attached to the mortice lock assembly, the first cylinder lock assembly having a first cam with a first arm and an intermediate arm, the second cylinder lock assembly or turnsnib having a second cam with a second arm, rotation of the first cam moving the first arm in a first plane and the intermediate arm in an intermediate plane parallel to the first plane, rotation of the second cam moving the second arm in a second plane parallel to the first plane, the mortice lock assembly including a housing, a lock means in the housing that is adjustable between an active condition and an inactive condition, the lock means including a sliding member with an abutment formation which interacts with the first cam and the second cam, the abutment formation having a first zone, an intermediate zone and a second zone to interact with the first arm, intermediate arm and second arm respectively, the intermediate zone being positioned between the first zone and the second zone.

13. A combination according to claim 12 including a bolt movable relative to the housing between an extended position and a retracted position, an actuator that is operable for moving the bolt from the extended position towards the retracted position, the lock means rendering the actuator inoperable when in the active condition, the first arm being configured to also interact with the bolt to move the bolt from the extended position to the retracted position when the first cam is rotated one direction, and the first arm interacts with the abutment formation in the first zone to adjust the detent from an inactive condition to an active condition when the first cam

is rotated in an opposite direction.

14. A combination according to claim 13 wherein the intermediate arm interacts with the abutment formation in the intermediate zone on rotation of the cam in said one direction.

15. A combination according to any one of claims 12 to 14 wherein the abutment formation includes a first shoulder in the first zone, intermediate zone and the second zone, and a second shoulder in the first zone and second zone only.

16. A combination according to claim 15 wherein the abutment formation has a longitudinal direction and the first shoulder and second shoulder are spaced from each other in the longitudinal direction.

17. A combination according to claim 15 or 16 wherein the first shoulder is continuous across the first zone, intermediate zone and second zone.

18. A combination according to any one of claims 15 to 17 wherein the second shoulder of the first zone is spaced from the second shoulder of the second zone.

19. A combination according to any one of claims 12 to 19 wherein the first cam is configured with the bolt to prevent the first arm from interacting with the abutment formation to adjust the lock means from the active condition to the inactive condition.

20. A combination according to claim 19 wherein the first cam is configured with the abutment formation to prevent the intermediate arm from interacting with the abutment formation to adjust the lock means from the inactive condition to the active condition.

21. A combination according to any one of claims 13 to 20 wherein the actuator includes an inner hub and outer hub that is rotatable to move the bolt relative to the housing, and the lock means includes an inner pawl and an outer pawl which interact with the inner hub and outer hub respectively so as to prevent rotation of the inner hub and outer hub when the lock means is in the active condition.

22. A combination according to any one of claims 13 to 21 wherein the bolt is a latchbolt including a bevelled head and a body, with latchbolt biasing means for biasing the bolt towards the extended position, whereby the head extends out of the housing when the bolt is in the extended position and the head is substantially within the housing when the bolt is in the retracted position.

23. A combination according to any one of claims 12 to 22 wherein the second cam is configured to interact with the abutment formation only to adjust the lock means between the active condition and the inactive condition.

24. A combination according to any one of claims 13 to 22 wherein the second cam is configured to interact with the bolt to move the bolt from the extended position to the retracted position, and for adjusting the lock means from the inactive condition to the active condition only.