Claims:

1. Apparatus for producing an insert of compacted carbon particles having graphite and a binder therein for use in a heat exchange unit, the apparatus comprising:

a machine having a separate spaced apart loading station, compacting station and transfer station;

a block of metal material defining a plurality of cylindrical cavities extending therethrough;

a support mechanism, the block of metal material being mounted on the support mechanism;

said block of metal material being transportable on said support mechanism from said loading station to said compacting station and to said transfer station, when at said loading station each cavity receives a predetermined amount of carbon particles with graphite and a binder therein, a plurality of rams at said compacting station for compacting said carbon particles including two rams for each cavity, one ram positioned to enter said cavity from one end thereof and the other ram positioned to enter the other end of said cavity to exert a pressure of approximately 17 tons on said carbon particles to compact the carbon particles in each cavity, and when said block of material is at said transfer station the compacted insert in each cavity is transferred from the cavity to a heat exchange unit shell.

2. Apparatus as defined in claim 1 which further includes a skid plate disposed beneath said block of metal material to prevent said carbon particles from falling out of the plurality of cavities as the block of metal material is transported from said loading station to said compacting station.

3. Apparatus as defined in claim 2 which further includes a lock for securing said block of metal material in said compacting station throughout the time said rams are compacting the carbon particles in said cavities.

4. Apparatus as defined in claim 2 which further includes a plurality of rams at said transfer station to move the compacted carbon particles out of each of the cavities into a heat exchange unit shell.

5. Apparatus as defined in claim 2 which further includes a first cross member positioned below said stations and a second cross member positioned above said stations, a plurality of tie bars extending between and connected to said first and second cross members to adsorb the tensile load created during the compaction of said carbon particles.

Claims:

1. Apparatus for compacting an adsorbent material comprising:

a module defining a plurality of cavities and sequentially movable from a loading station to a compaction station and to a transfer station;

a plurality of rams disposed at said compaction station positioned to engage adsorbent material disposed in said cavities to compact the adsorbent material; and

means at said transfer station or extracting compacted adsorbent material form said cavities.

2. Apparatus for compacting an adsorbent material as defined in Claim 1 wherein said cavities have open ends and said rams include two rams for each cavity with one ram positioned to enter one end of a cavity and the other ram positioned to enter the other end of that cavity.

3. Apparatus for compacting an adsorbent material as defined in Claim 2 which further includes a skid plate disposed beneath said module to prevent adsorbent material from falling out of the cavities as the module is moved from said loading station to said compaction station.

4. Apparatus for compacting an adsorbent material as defined in Claim 2 wherein said rams exert a pressure on adsorbent material in each cavity of approximately 17 tons.

5. Apparatus for compacting an adsorbent material as defined in Claim 4 which further includes a lock for securing said module in said compaction station throughout the time that said rams are compacting adsorbent material in said cavities.

6. Apparatus for compacting an adsorbent material as defined in Claim 4 which further includes a first cross member positioned below said stations and a second cross member positioned above said stations, a plurality of tie bars extending between and connected to said first and second cross members to adsorb the tensile load created during the compaction of said adsorbent material.

7. A method of compacting adsorbent material comprising the steps of:

providing a block of material defining a plurality of cavities;

depositing a predetermined amount of an adsorbent material into each of said cavities;

applying a pressure of approximately 17 tons to said adsorbent material in each said cavity;

providing a heat exchange unit (HEU) can for each said cavity; and

transferring the compacted adsorbent material from said cavity to said HEU can.

8. A method of compacting adsorbent material as defined in Claim 7 wherein the step of applying pressure is accomplished by inserting a ram mechanism into each said cavity.

9. A method of compacting adsorbent material as defined in Claim 8 wherein said ram mechanism comprises a first ram inserted into one end of each cavity and a second ram inserted into the other end of each cavity.

10. A method of compacting adsorbent material as defined in Claim 9 wherein the predetermined amount of said adsorbent material is determined by weighing the adsorbent material.