What happens if two equal masses hit each other at the same velocity and as they try to rebound the two masses are not let to do so and are pushed again to each other from behind.

And then the whole energy of momentum is turned into either sound or light.

It’s a momentum collision that is totally depleted and the time of energy depletion is very small and the balls are not let to rebound at all you could make this doable by making several bigger masses hit push each other whenever the balls colliding try to rebound.