

The Use of Electricity on Shabbat and Yom Tov

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Preface

The topic of electricity in halacha is unique to our generation since there are no direct precedents in the Talmud or *rishonim* and the halachic discussion of this topic has been ongoing for less than 100 years. It is only since the technology developed and appliances became electrically powered that many of these questions arose... Over time many works were printed and it has become an established part of rabbinic literature.

Quoted from "Electricity," *Encyclopedia Talmudit*
18:642.

Introduction

The advances of technology have posed practical challenge to decisors throughout the ages. One of the hallmarks of Jewish law is

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its ability — and desire — to assimilate technological advances into the practices of observant Jews. The application of ancient and venerated principles of halacha to new situations has been, and remains, one of the essential tasks of modern decisors of Jewish law. In the last one hundred years, this task has become considerably more difficult due to the rapid and frequent changes in the state of technology.

This article surveys halacha's response to one of the technological breakthroughs of the last 150 years: the invention of electricity. In particular, it explores halacha's understanding of the use of electricity on Shabbat and Yom Tov within the rubric of prohibited work (*melacha*).¹ The technological revolution caused by the widespread use of electrical appliances has led to great discussion and debate within halachic circles. Thousands of monographs, responsa, and books have been written by halachic authorities in the preceding decades relating to the use of electricity on Shabbat and Yom Tov.²

This article is divided into five sections. The first discusses the basis for the prohibition of turning on or off incandescent lights on Shabbat. The second addresses the use of electricity where no light and heat is produced (e.g., turning on a fan). The third discusses

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1. A number of issues are not addressed in this article. In particular, it does not address the use on Shabbat of electricity generated (in violation of halacha) by Jews. This issue is of pressing importance, but only in Israel. So, too, this article does not reflect the considerable debate among authorities whether an action done with an electrical appliance is considered as if it was done directly by the one who turned on the appliance. This would, for example, be relevant in determining whether matzo made by a machine could be used for the *seder* since that matzo must be made specifically for consumption at a *seder*. For a discussion of the use of electricity for Shabbat, Chanukah, and havdalah candles, see Rabbi J. David Bleich, *Contemporary Halachic Problems* 1:219-225 (Ktav 1977).
 2. A number of works survey this topic thoroughly in Hebrew, and should be referred to for further analysis of the many issues discussed. See, *Encyclopedia Talmudit*, "Electricity" 18:155-190 (and appendix I (pp. 641-781)); Rabbi Shlomo Zalman Auerbach, *Minchat Shlomo* ch. 9-13; Rabbi Neuwirth, *Shemirat Shabbat Kehilchatah*, ch. 13; *Chashmal Behalacha* v.2 (this work is an annotated bibliography); and *Chashmal Leor Halacha*.

the differences between Shabbat and Yom Tov for purposes of the rules developed in sections one and two. The fourth analyzes various specific appliances in light of the rules developed, and the fifth discusses various issues relating to the use of timers to control appliances on Shabbat and Yom Tov.

I. Incandescent Lights on Shabbat

A. Turning On Incandescent Lights During Shabbat

One of the earliest issues involving electricity found in halachic literature was the permissibility of turning on an incandescent light on Shabbat.³ The overwhelming majority of the decisors maintained (for reasons to be explained) that turning on an incandescent light on Shabbat violated a biblical prohibition.

The Mishnah (*Shabbat* 41a) rules:

One who heats a metal pot [literally, a boiler] may not pour cold water into it to heat it; however, one may pour water into the pot or a cup in order to temper it.

The Talmud (*Shabbat* 41a-b) in discussing this mishnah states:

Rav says this mishnah is only ruling [that it is permitted to pour water into a heated pot] when the water temperature is modified, but if the metal is hardened it is prohibited [to heat the metal]. Samuel says this is permitted even if hardening occurs. [The Talmud replied] if the primary purpose [of heating the metal] is to harden the pot, nobody permits its heating.

So, too, the Talmud (*Yevamot* 6b) declares:

Rabbi Sheshet rules that the cooking [burning] of a wick [of metal], just like the cooking of spices is prohibited on Shabbat [because of the biblical prohibition to cook on Shabbat].

3. An incandescent light generates light by causing electrical current to flow through a metal filament. The resistance to the current flow generates light and heat.

Rambam codifies these rules (*Shabbat* 12:1) by recounting:

One who heats a metal bar in order to temper it in water has violated the biblical prohibition of lighting a flame.

Ravad immediately disagrees as to the nature of the biblical prohibition and rules that heating a metal bar until it glows is prohibited because of either cooking (as Rambam elsewhere appears to classify it (*Shabbat* 9:6)) or as *ma'keh bepatish*, completing a nearly finished process. Both authorities, however, agree that a biblical prohibition is violated when metal is heated until it glows. There is no biblical prohibition violated in generating light per se.

Based on the position of Rambam, which most commentaries accept (see *Shaar Hatziun, Orach Chaim* 218:1), the overwhelming majority of authorities conclude that turning on an electric light on Shabbat — an action which heats a metal filament until it glows — violates the biblical prohibition of lighting a flame.⁴ Some disagree and, based upon the position of Ravad, maintain that while a biblical prohibition is violated, the prohibition is that of cooking (*bishul*) and not of lighting a flame.⁵

Yet a third position is found in the commentaries. These authorities limit the statement of the Talmud and codes — that it is prohibited to heat a metal bar until it glows — to the case where the heating is done in order to affect the metal (in the case of the Rambam, to temper the iron). According to these authorities, there is no *biblical* prohibition intrinsic in the generation of light and heat; rather, that action is only biblically prohibited when it is intended to affect the metal. The incidental heating of the metal in incandescent lights, however, is an action not intended for its

4. See *Beit Yitzchak, Yoreh Deah* 1:120; *Achiezer* 3:60; *Melamed LeHoil Orach Chaim* 49; *Tzitz Eliezer* 3:17; *Pri Yitzchak* 62; *Brit Olam, Mechabe U'mavir* 1:98; *Chelkat Yaakov* 1:52 (see also the introduction to this work by Rabbi I.Z. Meltzer where Rabbi Meltzer agrees with this assertion); *Yesodei Yeshurun* 5:147.

5. *Chazon Ish Orach Chaim* 50:9; *Yesodei Yeshurun* 5:127 (some say); *Shevet Levi* 1:47 (alternative possibility).

designated purpose (*melacha she'einah tzrichah legufah*) because when one turns on a light one does not intend to affect the metal in the filament. Thus no biblical prohibition occurs. Even the authorities who follow this position concede, however, that a rabbinic prohibition is violated.⁶

This third position has been categorically rejected by most decisors.⁷ In fact, in *Teshuvot Doveiv Meisharim* (1:87), Rabbi Weidenfeld states that the position of those who rule that turning on lights is only a rabbinic violation should not even be taken into consideration by decisors when rendering halachic decisions regarding matters of electricity. Rabbi David Tzvi Hoffman (*Melamed Lehoil* 1:49) states what has emerged as the consensus opinion: the verse (*Exodus* 35:3) "One may not create a fire on Shabbat in all your dwellings" describes the prohibition against creating fire of any sort. Current flowing through a filament and causing it to glow creates fire despite the absence of a "flame" and regardless of whether that which is on fire is consumed.⁸ Rambam's assertion (*Shabbat* 12:1) that heating a metal is prohibited because of burning only proves this rule, and was not intended to limit it.

The consensus of opinion — accepted by nearly all rabbinic authorities — is that turning on an incandescent electric light on Shabbat violates a biblical prohibition, although the precise prohibition is in dispute; most authorities maintain the prohibition is lighting a flame, and a minority contends that the prohibition is either cooking or *ma'keh bepatish*.

6. *Maharsham* 2:246; *Chasdei Avot* pp. 43-75; *Yam Gadol, Orach Chaim* 26 (in the name of some); *Levush Mordechai Orach Chaim* pp. 47-51. Rabbi Auerbach (*Minchat Shlomo* pp. 103-105) addresses this issue at great length and appears to demonstrate that these authorities are in error. He also states that even Ravad (who maintains that heating a metal constitutes cooking) would admit that causing a filament or heating element to glow is an act of burning (*mavir*).

7. See the authorities cited in notes 4 and 5.

8. One authority maintains that the biblical prohibition of creating a flame is always inapplicable to lighting an incandescent bulb because the prohibition only applies where the substance which is burning is consumed as per *Shulchan Aruch HaRav, Orach Chaim* 495:2.

B. Raising Intensity of an Incandescent Light

Raising the intensity of a light produced by an already glowing incandescent bulb on Shabbat contains issues distinct from that of turning on the light, and in fact a number of modern authorities appear to label this as only a rabbinic violation. Assuming that the prohibition in turning on a light is cooking (*bishul*), as the Ravad and others maintain, it is possible that raising the heat and light output of the light is analogous to reheating an item which is already cooked. The glowing light is similar to the cooked food. If that is correct, then raising the light intensity is not a biblical prohibition, just as reheating an already cooked food is not a biblical violation (*Minchat Shlomo* pp. 109-110). The Chazon Ish disagrees (*Orach Chaim* 50:9) and states that since the additional heating increases the light production, it is not analogous to reheating a cooked item, and a biblical prohibition is violated.

According to those authorities who locate the prohibition in turning on a light in burning, as most do, every increase in intensity would logically seem to be an additional violation.⁹

C. Turning Off or Dimming Incandescent Lights

As was first pointed out by R. David Tzvi Hoffman (*Melamed LeHoil, Orach Chaim* 49) and widely accepted since, the turning off or dimming of an incandescent light on Shabbat is considered to be only a rabbinic violation.¹⁰ This is because according to biblical law (*deorayta*) the only time an action is prohibited on Shabbat is when the prohibited work is done for its direct consequences (*melacha she-tzrichah legufah*) and that the prohibited result must occur. For example, if one were to pour water onto another's field intending only to dispose of water — and not to irrigate the crops (the

9. Rabbi Auerbach appears to argue with this also. He maintains that increasing current flow to a light is not similar to adding fuel; see *Minchat Shlomo* pp. 109-110. Logic appears to disagree with this.

10. See e.g. *Kuntres Gorem HaMalot* 185; *Maharsham* 2:146; *Minchat Shlomo* pp. 85-88; *Shemirat Shabbat Kehilchatah* 13:1. For reasons unclear to these authors, two authorities have taken a contrary position and ruled that a biblical violation occurs; see *Machaze Avraham, Orach Chaim* 41 and *Beit Yitzchak, Yoreh Deah* 2:31:8.

intended purpose of the biblical prohibition of watering a field) — although the actions are physically identical to a prohibited biblical action, the intent of the person (to wash his hands rather than irrigate the field) spares one from a biblical violation.¹¹

The Talmud (*Shabbat* 44a, 42a, 134a) states that extinguishing a flame is biblically prohibited only when the person who is doing the extinguishing desires the product of the extinguished flame (e.g., ashes (carbon black) or dirt) and not when one “merely” intends to remove the flame and have darkness.¹² In all other instances, only a rabbinic violation is committed. Thus, turning off an electric light is certainly no worse than directly extinguishing a lit flame which, if done to create darkness rather than to produce ashes, is only a rabbinic violation.¹³

Rabbi Auerbach argues that there is another reason turning off incandescent lights on Shabbat is not a biblical prohibition. He claims that turning off a light by turning off the switch is analogous to removing all the fuel from an oil lamp on Shabbat in a manner which does not directly extinguish the flame. If this is so, it would unquestionably be only a rabbinic violation to extinguish a flame on Shabbat.¹⁴

D. Non-Incandescent Lights

The use of non-incandescent lights — such as fluorescent¹⁵ or

11. See e.g., *Chayei Adam, Shabbat* 11:1.

12. See *Chayei Adam, Shabbat* 45:1 and Tosafot “*Deculei Alma*” *Shabbat* 43b.

13. Tosafot (*id.*) states that this is a more serious rabbinic prohibition than the standard rabbinic prohibition on Shabbat.

14. *Minchat Shlomo* pp. 107-109; see generally *Shulchan Aruch, Orach Chaim* 277:1-3. (Of course, if any of the prohibitions explained in part II of this article were to be applicable, it is possible that a biblical violation would be present.)

15. Fluorescent lights generate light by exciting a gas and thereby causing light to be emitted; virtually no heat is generated. There was a time when fluorescent lights were considered *halachically* identical to incandescent lights because of the “starter” used in older model fluorescent lights. The starter produced a small spark which started the fluorescent light. Modern fluorescent lights are lacking this starter and thus are not considered to be identical to incandescent lights; see *Encyclopedia Talmudit* “Electricity” 18:715.

neon,¹⁶ which do not produce light by heating a strip of metal which glows but rather by electrically exciting gases to emit light — are not prohibited on Shabbat because of the prohibition(s) discussed in this section. Since these lights do not contain a filament that glows, they are halachically identical to an appliance and not a light (and thus will be discussed in part II). There is no generic prohibition to create a light on Shabbat; rather, incandescent lights because of the way they operate happen to violate the prohibition to create a flame. So, too, extinguishing fluorescent “lights” on Shabbat is not rabbinically prohibited as a form of extinguishing since halacha does not recognize that there is a “light” to be turned off.¹⁷

Summary

The consensus of opinion is that turning on or raising the intensity of an incandescent light is biblically prohibited on Shabbat. Turning off or dimming such a light is rabbinically prohibited on Shabbat. Non-incandescent “lights” are not considered “lights” according to halacha.¹⁸

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16. Neon lights, like florescent lights, generate light by electrically exciting gasses; no flame is produced. So too, LE and LC displays have no filament. In fact, LCDs do not illuminate at all. Instead, when subjected to an electric potential, LCDs darken and become visible. Halogen lights appear to be identical to incandescent lights as a hot metal filament is the source of the light produced.
17. For a complete analysis of these issues, see Rabbi Y. Rosen, “*Ma’alit Automatit BeShabbat*,” *Techumim* 5:75 (and particularly pp. 94-96) (5744).

It is possible that extinguishing a fluorescent or neon bulb is prohibited because of *marit eyin* or *chashad*, because the casual observer might think that either incandescent lights may be extinguished or that the person who is doing the action is sinning; see *Chashmal Leor Halacha* 3:57. This would depend on whether the light produced by these systems appears similar to that produced by an incandescent light. Frequently it does not.

18. This section deals only with the prohibitions of lights qua lights. Obviously, many of the issues addressed in part II are also relevant to this section as well. For example, if one were to conclude that turning a circuit on or off of is biblically prohibited in all cases because of “building,” it would not matter practically whether extinguishing a light violates the prohibition of *mechabe* (extinguishing); see e.g., Rabbi J. David Bleich, “Microwave Ovens on Shabbat,” 25:2 *Tradition* 68 (1990).

II. Using Electrical Appliances (Other than Lights) During Shabbat

Section one addressed the prohibitions associated with the use of electricity to generate heat and light. This section surveys the halachic issues involved in the use of electricity when there is no apparent generation of (and no intent to create) light and heat. The consensus of halachic opinion maintains that it is typically prohibited to turn on electrical appliances on Shabbat. However, a clear understanding has yet to emerge regarding *why* such a prohibition exists; indeed, one eminent authority maintains that the use of electrical appliances is only prohibited because of tradition. Seven reasons have been advanced to prohibit the use of electrical appliances on Shabbat.¹⁹ The first six reasons are summarized as follows:

- 1) Turning on an appliance is analogous to creating something new (*molid*) which is prohibited on Shabbat.
- 2) Completion of a circuit is prohibited because it is a form of building (*boneh*).
- 3) Turning on an appliance violates the prohibition of *ma'keh bepatish* (completing a product).
- 4) Completion of a circuit must kindle sparks and therefore is prohibited because it creates a flame.
- 5) The use of any electrical current leads to an increase in fuel consumption at the power station, which is prohibited.

19. One other reason was occasionally advanced by rabbinic authorities when electricity first became common. A number of authorities were of the opinion that the electrons in the wires were a form of a flame and that extending that flame was prohibited on Shabbat. See *Even Yekara* 2:168; *Beit Vaad Lechachamim* 1:1 (in the name of the Rabbi Y. M. Epstein). For a complete list of these authorities, see *Yabia Omer*, *Orach Chaim* 1:19; 2:26. See section III for a further discussion of this issue.

- 6) Heating of a metal transistor or wire, even when no visible light is emitted, is prohibited because of cooking or burning.

These first six possible bases for prohibiting the use of electrical appliances on Shabbat divide into two groups. The first four relate to the completion of a circuit which causes current to flow.²⁰ The final two locate the source of the prohibition in running (and not turning on) the appliance. If each of these prohibitions were to be found inapplicable, then only the following reason would remain:

- 7) The use of electricity without light or heat is actually permitted, but because observant Jews since the invention of electricity have maintained that it is prohibited to use electrical appliances on Shabbat, and rabbinic authorities approved of this stricture, it is prohibited to use such appliances — absent great need — because of tradition.

Each of the first six possibilities requires detailed analysis.²¹

While it is beyond the scope of a survey article to convey the full force of the complete halachic dialogue among the various authorities, an effort has been made to present, along with each opinion, some of the Talmudic proofs and some of the questions raised in opposition to each reason.

A. Creating Something New (Molid)

The possibility that the use of electricity on Shabbat violates

20. For a discussion of the issue of completing a circuit when no current flow occurs see *Minchat Shlomo* pp. 91-95 and *Tzitz Eliezer* 6:5.

21. This article will not evaluate the correctness of the stricture contained in the final reason (that electricity should not be used because tradition prohibits its use, albeit incorrectly) as this reason involves considerations of halacha far beyond the scope of this article, and involves fundamental questions of the relationship between *minhag*, halacha and common practice; see generally Rabbi Herschel Schachter, "Is Canned Tuna Kosher?" *Journal of Halacha and Contemporary Society* 15:7, pp. 8-9 (1988).

the prohibition of *molid* was first suggested by Rabbi Yitzchak Schmelkes (*Beit Yitzchak* 2:31). Rabbi Schmelkes states that just as the Sages forbade creating a new fragrant scent in one's clothes on Shabbat, *molid reicha* (*Beitza* 23a) — an action which Rashi explains was prohibited because "one who creates something new is almost as one who performs a biblically forbidden act" — so too they forbade creating anything new on Shabbat, including appliances made "new" through the use of electricity or the creation of a current flow. Thus, he states, creating a current flow (*molid zerem*) is rabbinically forbidden because in doing so one has created something new — a functioning appliance.

Rabbi Shlomo Zalman Auerbach and many others²² disagree with Rabbi Schmelkes' thesis. Essentially these authorities state that Rabbi Schmelkes' theory must be wrong because any creative act which is routinely done and undone throughout the day cannot be included in the rabbinic prohibition of creating something new. Moreover, there are many examples of "new creations" which were not prohibited by the Sages. Merely because creating a new fragrance is prohibited does not imply that all new "creation" is prohibited on Shabbat. Rabbi Auerbach insists that only a limited number of actions were prohibited in the Talmud because of *molid*, and one may not extrapolate from these limited examples that creating anything else new (like electrical current) is rabbinically prohibited.

A proof to this can be found in a responsum of the *Chacham Zvi* (# 92), which limits the prohibition of *molid* to the application of a fragrance to one's clothes. However, he permits one to apply fragrance to many things other than clothes. In addition, Rabbi Auerbach (*Minchat Shlomo* p. 74) provides numerous examples of new "creative actions" which the rabbis never forbade.

B. Building (Boneh)

The second possible basis for prohibiting the use of electricity

22. *Minchat Shlomo* pp. 71-74; *Tzitz Eliezer* 1:20:10, and the authorities cited therein; *Tzalach Hachadash*, *Kuntres Acharon* 1.

can be found first in the works of Rabbi Abraham Isaiah Karelitz, commonly referred to by the name of his *magnum opus*, *Chazon Ish*.²³ He states that it is likely that completion of a live circuit constitutes a forbidden act of building (*boneh*) on Shabbat. He reasons that completing a circuit renders a previously useless wire into a functional wire, and this is analogous to completing a building or wall. In addition, completing a circuit is analogous to assembling an appliance composed of numerous parts — which halacha defines as building — and is thus prohibited on Shabbat.

The Chazon Ish's position has aroused great debate among halachic scholars. The most vigorous and thorough critique of this position is found in the eleventh chapter of Rabbi Shlomo Zalman Auerbach's work, the *Minchat Shlomo*. While Rabbi Auerbach advances numerous critiques of the Chazon Ish's position, the most crucial aspect of his criticism is that opening a circuit which is designed to be opened and closed routinely cannot be considered an act of building or destroying.²⁴ Closing a circuit is analogous to closing a door — an action which the halacha does not consider to be "building" since the door is intended to be opened and closed constantly.²⁵

The overwhelming majority of halachic decisors appears to side with Rabbi Auerbach. As the *Encyclopedia Talmudit* (18:166) states:

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23. *Chazon Ish*, *Orach Chaim* 50:9; *Meorot Natan* 6:7; *Levush Mordechai* 3:25. See also the letters written by Chazon Ish to Rabbi Auerbach (published in *Minchat Shlomo* pp. 92-94) clarifying his position.
 24. Rabbi Auerbach points out that all the outstanding authorities who have discussed the issue of electricity prior to the Chazon Ish never even alluded to the possibility that the completion of a circuit is an act of building; see section III. In addition he states that there is no prohibition in transforming a dead or useless object into a live or useful object on Shabbat.
 25. Rabbi Moshe D. Tendler (in a lecture at Yeshiva University) has asserted that this argument appears to have convinced Rabbi Moshe Feinstein to reject the opinion of the Chazon Ish. Rabbi Feinstein's writings provide no precise definition of the prohibitions one violates when using electricity, although he does not appear to have accepted the Chazon Ish's opinion. See, e.g., *Iggerot Moshe*, *Orach Chaim* 3:42; 1:50; 4:84; and 4:85.

From the writings of numerous *acharonim* it appears that turning on an electrical circuit does *not* violate the prohibition of fixing an object [*metaken mana* and *ma'keh bepatish*] or building [*boneh*].²⁶

Nevertheless, at the very least halachic authorities do take into consideration the opinion of the Chazon Ish on this issue when rendering decisions regarding electricity.²⁷

C. Ma'keh Bepatish (Completing an Appliance)

Some authorities believe that causing an electrical appliance to work is a biblical violation of *ma'keh bepatish*²⁸ (literally "the final blow of the hammer" but generally understood to mean the final act in finishing any product and making it useful²⁹). These authorities cite as precedent those who prohibited winding a watch for this reason.³⁰ Purely by analogy, these authorities argue that since an electrical appliance is useless before electricity is added to it, the introduction of electric current causes it to become a useful piece of equipment, and is therefore prohibited because of *ma'keh bepatish*.

Rabbi Shlomo Zalman Auerbach (*Minchat Shlomo* pp. 69-73) and Rabbi Yaakov Breisch (*Chelkat Yaakov* 1:53) strongly disagree. They argue that since an appliance is designed to be frequently turned on and off, that action cannot be categorized as *ma'keh bepatish*. Moreover, they state that it is accepted that an action is considered to be *ma'keh bepatish* only when that final act is

26. In footnotes 122, 123 and 133 to 139, the *Encyclopedia Talmudit* collects the numerous authorities who reject the Chazon Ish's approach.

27. See, e.g., *Yechave Da'at* 1:32; *Tzitz Eliezer* 6:6; *Minchat Yitzchak* 3:38 Rabbi Shlomo Zalman Auerbach as cited in *Shemirat Shabbat Kehilchattah* 1:28:29 (see also *Minchat Shlomo* p. 81).

28. *Chazon Ish*, *Orach Chaim* 50:9; *Mishpatei Uziel* 1:13; *Tzitz Eliezer* 6:6; *Edut Liyisrael* (Rabbi Y. E. Henkin) p. 121. (Rabbi Henkin states that perhaps only a rabbinic prohibition is involved. This prohibition, *metaken mana*, is a subprohibition of *ma'keh bepatish*).

29. See Rambam, *Hilchot Shabbat* 23:4.

30. See *Mishnah Berurah* 338:15; *Chazon Ish*, *Orach Chaim* 50:9. For a summary of the opinions on this topic see *Yechave Da'at* 2:48.

permanent or involves great effort. But, since one does not ordinarily intend to turn on an appliance permanently and since turning on an appliance does not involve great effort, this action cannot be considered as violating *ma'keh bepatish*. The majority of authorities agree that *ma'keh bepatish* cannot be the source of the prohibition to turn on electrical appliances.³¹

D. Sparks

The fourth reason advanced to prohibit turning on appliances during Shabbat is that the mechanical switching on or off of an electrical circuit generates sparks.³² As a general rule, the creation of sparks is forbidden under the rubric of the rabbinic prohibition against producing sparks from wood or stones. Numerous authorities maintain that an electrical appliance that generates sparks is thus prohibited.³³

A number of factors, however, indicate that this prohibition is inapplicable to the sparks created by turning mechanical switches on or off. First, these sparks are created unintentionally (*davar she'eino mitkaven*), and no prohibition exists when there is no intent to perform an action on Shabbat and that action might not occur.³⁴ Second, since these sparks are so small that one cannot detect any heat when touching them, and typically they are not

31. See *Encyclopedia Talmudit* "Electricity" 18:166 (see text accompanying note 26).

32. Running a motor powered by direct current (as opposed to alternating current) also must generate sparks.

33. *Beitza* 33a; *Chazon Ish*, *Orach Chaim* 50:9; *Melamed LeHoil* 1:49; *Chelkat Yaakov* 1:55; *Minchat Yitzchak* 3:38. Some authorities believe that the creation of such sparks involves a biblical violation of the creation of fire (*mavir*). The *Chazon Ish*, however, asserts that it is merely a rabbinic prohibition of extracting fire from wood and stones.

34. See section IV, introduction. The creation of these sparks is dependent on many factors including voltage and humidity. Rabbi Auerbach (*Minchat Shlomo* pp. 86-87) insists that even were the creation of these sparks to be inevitable, they would not constitute a halachic problem. Since one derives no benefit from this act (*psik resha delo nicha leh*), some authorities permit this

visible, it is possible that these sparks should not be considered fire.³⁵ Additionally, the advent of solid state technology³⁶ and sparkless (arcless) switches frequently makes this issue technologically moot. Thus, Rabbi Auerbach (*Minchat Shlomo* pp. 86-87) states "practically (*lehalacha*) there isn't even a rabbinic prohibition in the unintentional creation of sparks."

E. Additional Fuel Consumption

Another possible problem is raised by the author of *Chashmal Leor Halacha* (2:6). He writes that completing a circuit and causing a current flow sometimes causes additional fuel to be consumed by the power station as a result of the increased need for electricity. Causing additional fuel to be consumed perhaps is to be considered in the category of burning which is forbidden on a biblical level. Thus, it might be prohibited to draw increased current on Shabbat.

Rabbi Auerbach (quoted in *Shmirat Shabbat Kehilchata* 1:23 n.137) disagrees.³⁷ First, one is only indirectly causing increased fuel consumption (*grama*). More significantly, greater fuel consumption

act. Even those who are stringent in this matter generally would rule leniently in this particular instance because of three considerations. First, the prohibition to create these sparks is merely rabbinic, not biblical. Second, this is not the usual manner of creating sparks and the severity of prohibition is significantly diminished when performed in an unusual manner (*kil'achar yad*). Third, the severity of the action is reduced even further because it is a destructive act (*mekalkel*) since these sparks in time damage the points of contact in the circuit. He cites *Dagul Merevavah* (*Orach Chaim* 340:3) as a precedent to be lenient in such circumstances. (The *Mishnah Berurah* (340:17) does not fully accept the position of the *Dagul Merevavah*.)

35. As a general rule, halacha attaches no significance to anything which the naked eye cannot discern; see *Aruch Hashulchan*, *Yoreh De'ah* 84:36 and *Iggerot Moshe*, *Yoreh Deah* 3:120:5.
36. Prior to the advent of solid state technology, information (e.g. radio waves or the like) was transmitted by means of a filament enclosed in a vacuum tube. This process must cause a filament to glow, which is a biblical prohibition on Shabbat. Solid state technology (e.g. transistors or microchips) uses metal (or metal-like) devices to process information, and therefore need not have a glowing filament or any other source light and heat.
37. For a similar view, see *Aseh Lecha Rav* 5:94

is not inevitable or even likely when one turns on one appliance, because statistically it is likely that at that very moment, someone elsewhere has turned off an electrical appliance, thereby eliminating the need for increased electric output. Finally, outside Israel the power plants are operated by gentiles (if they are not fully automated), and hence the prohibition would only be in directing a non-Jew to violate the Shabbat, which is only a rabbinic prohibition.

F. Heating a Wire or Filament

One other possible prohibition is raised by the Chazon Ish.³⁸ He states that when the current passing through a wire raises the wire's temperature above the temperature at which a human hand pulls away because of the heat (*yad soledet bo*),³⁹ it is considered to be an act of "cooking" (*bishul*) and thus prohibited. The Chazon Ish states that this "cooking" is prohibited even though the person who turns on the appliance is unaware that it is occurring and does not intend that there be any "cooking."

Rabbi Auerbach (*Minchat Shlomo*, p. 107) disagrees and states that a metal wire can only be "cooked" when one intends to soften (or temper) the metal and it glows. Although the wire is slightly softened, once the electricity is extinguished the wire immediately returns to its original state. In addition, one who turns on an appliance has no intention to soften the wires; hence this action can not be defined as "cooking" from the perspective of halacha.⁴⁰

Additionally, in the last twenty years, solid-state technology has become dominant, and fewer and fewer appliances have wires

38. *Chazon Ish, Orach Chaim* 50:9. Rabbi David Zvi Hoffman raises this as a possibility as well; see *Melamed Lehoil, Orach Chaim* 49.

39. A temperature between 110 and 170 degrees Fahrenheit. For a complete discussion of *yad soledet bo* for the purposes of Shabbat see Rabbi S. Eider, *Halachos of Shabbos* 4:242-243.

40. Of course, if the filament were to grow sufficiently hot that the metal visibly glowed, all would concede that to be prohibited for the reasons explained in part I.

that are heated (vacuum tubes), thus making this argument factually obsolete.

G. Electrical Appliances Permitted

Rabbi Auerbach (*Minchat Shlomo* 74, 84), after rejecting all the potential sources discussed above for prohibiting the use of electricity when no light or heat is generated, concludes that, at least in theory, electrical appliances that use no heat or light (e.g., a fan) are permitted on Shabbat and Yom Tov. However, he declines actually to permit their use *absent urgent need*. He states:

In my opinion there is no prohibition [to use electricity] on Shabbat or Yom Tov . . . There is no prohibition of *ma'keh bepatish* or *molid* . . . (However, I [Rabbi Auerbach] am afraid that the masses will err and turn on incandescent lights on Shabbat, and thus I do not permit electricity absent great need . . .) . . . This matter requires further analysis.

* * *

However, the key point in my opinion is that there is no prohibition to use electricity on Shabbat unless the electricity causes a prohibited act like cooking or starting a flame.

Rabbi Auerbach additionally states that since the tradition forbids the use of electricity, and this tradition received near unanimous approval from rabbinic authorities, in the normal course of events observant Jews should accept this tradition (even though he feels it is based on incorrect premises) and operate under the presumption that the use of electricity without light or heat is a violation, of rabbinic origin, based on *molid*.⁴¹ Only in the case of urgent need does he allow one to rely on his opinion that electricity

41. The analysis of Rabbi Shmelkes (*Beit Yitzchak*), that electricity is rabbinically prohibited because of *molid* (creating something new), seems to be the approach accepted by the largest number of authorities; see *Encyclopedia Talmudit* "Electricity" 18:163-4 and notes 98-114.

is permitted where no heat or light is generated.

In cases of urgent need it is possible to accept Rabbi Schmelkes' ruling that electricity is prohibited as a form of creating something new (*molid*) as correct, and perhaps still use electrical appliances. For example, in a recent work, *Shealot Uteshuvot Merosh Tzurim* pp. 501-509, Rabbi Shmuel David was asked by kibbutz members if it was permitted to use a telephone on Shabbat to call a veterinarian for advice on a mysterious plague that had struck the chicken coop. This plague was so devastating that it would destroy nearly all of the animals if professional help were not received. Furthermore, these chickens were a significant source of financial support to the kibbutz. Rabbi David ruled that it was permitted to use the telephone if it was used in an unusual manner. He reasoned that in all likelihood, Rabbi Auerbach is correct and no prohibition is violated, and even if the *Beit Yitzchak* is correct, in cases of great need (perhaps even great financial need, and certainly physical need), since this case involved suffering to living creatures (*tza'ar ba'alei chaim*), rabbinic prohibitions when done in an unusual manner may be violated.⁴²

So, too, when one is forced to choose between prohibited actions, it is appropriate to realize that the consensus is that electricity without light and heat is a rabbinic and not a biblical violation. For example, if one has to bring a person to the hospital on Shabbat, it is unquestionably preferable to call a taxi (for a gentile driver) by telephone, which most consider only a rabbinic violation (see section IV:b), than to drive there oneself (which is unquestionably a biblical violation), if the few minutes differential in time are irrelevant.

H. Turning Off Appliances

While the tradition is well established that one does not turn

42. It is a generally accepted rule within halacha that certain types of rabbinic law can be violated if done in an unusual way (*kelachar yad*) and great loss would result absent such violations. See Meiri, *Shabbat* 144b; Ran, (*id.*); Ramban, *Shabbat* 130b; Rashba, (*id.*); Rashi, *Pesachim* 66b; *Chazon Ish*, *Shabbat* 56:4.

off appliances on Shabbat, the reasons for this prohibition are unclear. Of the six reasons advanced above to prohibit turning on electrical appliances, the inverse of three of them is directly applicable to turning off appliances. These three reasons are:

- 1) Just as turning on a circuit is prohibited because it is a form of building (*boneh*), turning off a circuit is prohibited because of the biblical prohibition to destroy (*soter*). (Chazon Ish, Reason B above).
- 2) Turning off a circuit, just like turning on a circuit, causes sparks to kindle which is prohibited because of *mavir* (lighting a flame). (Sparks, Reason D above).
- 3) Removal of heat from a currently hot metal filament is rabbinically prohibited either because of extinguishing or because of a special prohibition of taking a cooking item off the stove. (Reason F above).

The viability of each of these reasons in the context of prohibiting turning off an appliance is closely connected to its correctness in prohibiting turning on such appliances. For example, if turning on an electrical appliance is actually building (*boneh*), then it is logical to maintain that turning off an appliance violates the complementary biblical prohibition to destroy (*soter*). On the other hand, if for the reasons explained above *boneh* is inapplicable, so too is *soter*.⁴³

It is also worth noting that the tradition in observant houses is typically to refrain — absent need — even from practices that are

43. Rabbi Auerbach states that even if the Chazon Ish was correct that turning on an appliance violates the prohibition to build, turning off such an appliance need not necessarily violate the prohibition to destroy; see *Minchat Shlomo* pp. 101-102.

The other three reasons advanced to prohibit the use of electrical appliances — *molid*, *ma'keh bepatish*, and increasing fuel burned — have no corresponding prohibition related to turning off, and standing alone would not prohibit turning off appliances.

apparently permissible according to all written discussion of this issue. For example, these authors are aware of no authority who prohibits one to reduce current flow (without turning off) a solid state appliance on Shabbat. Yet it is clear that the tradition is not normally to engage in such conduct on Shabbat.⁴⁴

Summary

The reasons advanced to prohibit the use of electricity on Shabbat when no light or heat is generated are quite diverse. They range from the biblical prohibition of building to the rabbinic prohibition to create something new (*molid*) or to tradition without any precise basis in the laws of Shabbat. Whatever the basis, accepted practice generally prohibits the use of electricity on Shabbat even when no light or heat is generated.

III. Electricity and Lights on Yom Tov

The use of lights (and electricity) on Yom Tov differs significantly from that of Shabbat in one key respect. On Shabbat it is prohibited either to start or increase a flame. However, on Yom Tov it is permitted to add fuel to an already burning flame.⁴⁵ For example, while it is prohibited to light a match on Yom Tov, it is permitted to transfer a flame from one candle to another candle. Thus it is prohibited on Yom Tov, just like on Shabbat, to turn on an incandescent light — since turning on a light is (as explained above) halachically identical to lighting a match.⁴⁶ Unlike Shabbat,

44. For example, when the alarm in a solid state radio accidentally goes off on Shabbat, the tradition in accordance with the Chazon Ish's approach would prohibit one from turning off the alarm because of *soter*. On the other hand, it would appear to us permissible to lower the volume of the alarm in an unusual way (*kelachar yad*) since none of the reasons discussed prohibiting electricity are applicable (no circuit is opened or closed and no appliance is turned on or off) and *oneg Shabbat* is otherwise greatly curtailed.

45. See *Shulchan Aruch, Orach Chaim* 502:1-3.

46. *Achiezer* 3:60; *Chashmal Leor Halacha* 3:11; *Minchat Shlomo* p. 69. For a

however, it is likely that on Yom Tov this is only rabbinically prohibited, as most authorities maintain that even creating a new flame on Yom Tov is only a rabbinic violation.⁴⁷ So, too, it is only rabbinically prohibited to turn off a light on Yom Tov.⁴⁸

There are a number of authorities, however, who feel that it is permissible to turn on incandescent lights on Yom Tov. Three distinct reasons have been given to justify this practice.⁴⁹

- 1) Turning on a light is only indirectly causing the light to go on. This type of indirect action (*grama*), while generally prohibited on Shabbat, is permitted for rabbinically prohibited actions on Yom Tov.
- 2) The prohibition to create a new flame is only violated by using wood, flint, or matches which will not directly contribute to *ochel nefesh* (food for Yom Tov) or which could have been done before Yom Tov began. Neither of these are applicable to creating new light or heat through electricity.⁵⁰
- 3) Turning on an incandescent light actually is the equivalent of only transferring a flame,

complete list of authorities who agree with this ruling, see *Encyclopedia Talmudit*, "Electricity" 18:177 n. 250.

47. *Shulchan Aruch, Orach Chaim* 502:1 and commentaries *ad locum* (specifically see *Mishnah Berurah* and *Biur Halacha "ain motzim"*).
48. See e.g., *Yabia Omer, Orach Chaim* 1:19; 2:26. This is the unanimous opinion of the authorities and is not in dispute.
49. Letter from Rabbi Yechiel Michel Epstein (the *Aruch HaShulchan*) published in *Kovetz Vaad Chachamim*, :1 (Shevat 5663); *Even Yekara* 3:168; *Ohr Chadash* p. 64; Rabbi Tzvi Pesach Frank, *Kol Torah*, (5694); *Mishpetei Uziel Orach Chaim* 19; *Hilchata Rabata LeShabbata* 1:7; for a complete list of authorities who agree with this ruling, see *Chashmal Behalacha* 2:5.
50. Reasons one and two are essentially unrelated to our topic, as they address the question from the perspective of the laws of Yom Tov, and not with any particular insight into the nature of electricity according to halacha. According to these opinions, *indirect* lighting of a flame is permitted on Yom Tov while prohibited on Shabbat.

and not creating a new light, as the flame already resides in the wires.⁵¹

A number of rabbinic authorities, including Rabbi Tzvi Pesach Frank and Rabbi Yechiel Michel Epstein (the author of the *Aruch Hashulchan*), accepted the approach that permitted turning on lights on Yom Tov.⁵² However, this is not the approach of most authorities. The consensus of rabbinic authorities maintain that it is prohibited to turn on an incandescent light on Yom Tov.⁵³ After summarizing all those authorities who discuss this issue and concluding that it is prohibited to turn on lights during Yom Tov, Rabbi Ovadia Yosef (*Yabia Omer*, *Orach Chaim* 1:19; 2:26), states:

Since there are those who permit the lighting of electric lights on Yom Tov, one should not strongly rebuke people who turn on lights on Yom Tov — specifically since many congregations in the Diaspora have this tradition with the approbation of their rabbis. Nonetheless, it is proper to explain to such people in a mild voice that most rabbinic authorities are strict about this matter, and the law follows the majority.

This is supported by the fact that of the six substantive reasons advanced in part II for prohibiting the use of electrical appliances on Shabbat, five are equally applicable to Yom Tov.⁵⁴

51. This final reason has been generally rejected (see *Encyclopedia Talmudit* "Electricity" 18:179) as it is based on an erroneous understanding of the physical properties of electricity.

52. See note 49.

53. See note 46; *Iggerot Moshe*, *Orach Chaim* 1:115; *Otzar Chaim* 3:44; *Eretz Benyamin (Pri Sadeh)* 4:6; *Chazon Nachum*, *Orach Chaim* 1:30; *Chelkat Yaakov* 1:51; *Yaskil Avdi* 2:10; 4:27:3; *Shemirat Shabbat Kehilchatah* 13:2.

It would seem logical, however, that either increasing the light intensity or dimming a light on Yom Tov (without turning off or completing a circuit) is permissible so long as it is needed for Yom Tov (*letzorech ochal nefesh*). This is analogous to adding fuel to a pre-existing flame on Yom Tov, which is permitted.

54. Those who prohibit electricity due to increased fuel consumption at the power station on Shabbat would permit this on Yom Tov, as increasing fuel

Thus, each of the authorities discussed in part II who prohibit even electrical appliances without light or heat on Shabbat must maintain that incandescent lights are prohibited on Yom Tov for the same reasons. For example, if switching on a circuit during Shabbat is prohibited because of building (*boneh*) then turning on such a circuit on Yom Tov is also prohibited.⁵⁵

It also appears that any authority who permits turning on lights on Yom Tov (except perhaps for those who do so based on the indirect causation analysis, see note 55) must agree with the position of Rabbi Auerbach that there is *no* halachic obstacle to using electricity when no light and heat are produced. Authorities who permit turning on lights on Yom Tov must have rejected the reasoning of those who forbid activating a circuit based on the prohibition of building (*boneh*), finishing a product (*ma'keh bepatish*), creating a new electrical flow based on *molid* (creating something new), or creating sparks, as there is no distinction between Shabbat and Yom Tov for these prohibitions. This analysis would add a large number of eminent decisors to the list of those who agree with Rabbi Auerbach that electricity used solely as a form of mechanical energy is theoretically permitted on Shabbat (and actually permitted in cases of great need).

Summary

Two distinct approaches have been taken to the use of electricity on Yom Tov. Most authorities

consumption is generally permitted on Yom Tov.

55. It is possible that this is not quite correct. If one accepts that on Yom Tov turning on a light is permitted because one is only indirectly causing the light to turn on (*grama*, reason one discussed above), one could then conclude that indirect building (*gram boneh*) is permitted on Yom Tov, but prohibited on Shabbat. So, too, indirect creation (*gram molid*) could be permitted on Yom Tov, and prohibited on Shabbat. This argument appears incorrect to these authors, as that would label all uses of electricity on Shabbat to be only rabbinically prohibited since all indirect (*i.e.*, through *grama*) actions are only rabbinic violations even on Shabbat (a position which has attracted, to our knowledge, no support in the rabbinic literature).

maintain, and it is the accepted practice of observant Jews, to treat Yom Tov like Shabbat, and not to turn on lights or use electrical appliances on Yom Tov. A minority opinion, and the practice of some observant Jews, allows turning on lights (and perhaps other appliances also) on Yom Tov. All agree that it is prohibited to turn lights off on Yom Tov.

IV. The Use of Refrigerators, Telephones, Radios or Televisions, and Generating Static Electricity on Shabbat and Yom Tov

The previous sections explained the rules concerning the use of electricity on Shabbat and Yom Tov. This section summarizes the halachic discussion concerning four common appliances: refrigerators, telephones, radios, and televisions, as well as the question of generating static electricity on Shabbat. Since this section will integrate the rules developed into the general framework of the laws of Shabbat, four Shabbat rules will be used throughout this section. They are:

- 1) *Melacha she'einah tzrichah legufah* (an action not needed for its result). This occurs when one does a prohibited action on Shabbat not intending to commit the action prohibited by halacha. For example, pouring water on a field to dispose of the water, rather than to irrigate the field, is a *melacha she'eina tzericha legufah*. This is normally a rabbinic violation.
- 2) *Pesik resha* (undesired act). This occurs when a permitted act will inevitably and directly lead to a prohibited act. As an example, the Talmud states that if one cuts off the head of a chicken on Shabbat to play with the head, even though one does not care if the chicken lives or dies, a biblical violation has occurred since the action will inevitably lead to killing an animal (a biblical prohibition on Shabbat).
- 3) *Davar she'eino mitkaven* (unintended act). This is identical to a *pesik resha* except that the second act might not occur, and is thus permitted.
- 4) *Pesik resha delo nichah lei* (undesired act with no

benefit). This is a *pesik resha* where the second act, even though it must occur, will provide no benefit to the person causing it. Most authorities maintain this is a rabbinic violation; some maintain it is permitted.

A. Refrigerators

The opening of a refrigerator door on Shabbat has been the topic of vigorous debate in past decades. Opening the refrigerator door allows warm air to enter, thus causing a drop in temperature which causes the motor to go on sooner. If one accepts that turning the motor on during Shabbat is prohibited, then it would appear that opening the refrigerator door on Shabbat when the motor is not already⁵⁶ running is prohibited. Indeed, many prominent rabbinic decisors have adopted this position.⁵⁷ However, many authorities⁵⁸ assert that one is permitted to open a refrigerator even when the motor is off.⁵⁹

The prohibition associated with intentionally starting the motor in the refrigerator must be discussed first. It is possible that

56. Opening the door when the motor is already running is permissible because all that is done then is causing the motor to stay on for a longer period of time; see also section V.

57. See *Har Zvi* 1:151; *Mishnat Rabbi Aharon*, 1:4; *Minchat Yitzchak* 3:24; and *Chelkat Yaakov*, 1:54. Rabbi Ovadia Yosef, *Yabia Omer* 1:21 and Rabbi Yosef Eliyahu Henkin, *Edut Leyisrael* p. 152, recommend that one be stringent in this regard, although they both accept that it is permissible to open a refrigerator even when the motor is off.

58. Rabbi Shlomo Zalman Auerbach's argument can be found in his *Minchat Shlomo* pp. 77-91. Others who are lenient include Rabbi Waldenberg, *Tzitz Eliezer* 8:12 and 12:92, Rabbi Uziel, *Piskei Uziel* no. 15. Rabbi Aharon Lichtenstein reports that Rabbi Joseph B. Soloveitchik subscribes to the lenient position in this regard.

59. Almost all authorities accept that it is forbidden to open a refrigerator when the light inside will go on. Notwithstanding one's lack of intent to turn on the light when opening the refrigerator, this action is forbidden, since the light will inevitably go on (*psik resha*).

However, Rabbi S.Z. Rieger (the Dayan of Brisk) rules leniently in this regard (*Hapardes* 1934, volume three). His lenient ruling is based on two assumptions. First, he states that when the forbidden act has no benefit to the

no prohibition exists at all since, as explained above, Rabbi Auerbach asserts that no prohibition is violated when initiating an electric current if there is no heating element. Thus, Rabbi Auerbach contends that no Shabbat violation occurs when one causes a motor to run which in turn causes a gas to vaporize and thereby cools down the refrigerator; *Minchat Shlomo*, p. 84.

Moreover, Rabbi Auerbach writes that even the Chazon Ish, who believed that completion of an electric circuit constitutes a forbidden act of building (*boneh*), would concede that no violation occurs when one causes the motor to start prematurely by opening the door. Rabbi Auerbach maintains that the Chazon Ish limits the biblical prohibition of building to placing the plug in the socket. However, causing the motor to start earlier cannot be considered "building" for two reasons. First, an act cannot be defined as building if that act will occur later naturally. Turning on an appliance could only be defined as building because human intervention is required to stop this action. However, the refrigerator's motor will go off automatically shortly after it has begun to work. Second, the reasoning of the Chazon Ish is based on bringing the appliance "from death to life."⁶⁰ However, by allowing

one who performs it, and it is only incidental (*psik resha d'lo nicha leh*), no prohibition exists. Rabbi Rieger assumes that the lenient ruling of the *Aruch* (see *Aruch* defining the word "sever") is accepted. Second, Rabbi Rieger states that the light in the refrigerator provides no benefit to the one opening the door.

His first assumption is disputed by most authorities (see *Yabia Omer* 1:21,5; *Minchat Shlomo* p. 87). The consensus appears not to accept the *Aruch's* ruling as normative. The second assertion appears to be entirely incorrect. The light serves as a convenience to locate items in the refrigerator and cannot be described as having no benefit to one who opens the door.

Most authorities, however, maintain that it is acceptable to ask a Gentile to open the door of the refrigerator even if the light will go on; see *Iggerot Moshe, Orach Chaim* 2:68; and *Shemirat Shabbat Kehilchatah* pp. 100-101. So too, it would appear to these authors that one could allow a fellow Jew to open the door when he does not know the light will go on, as that is only in the category of *mitasek* (unknowing) and thus permitted; see e.g., Rabbi Joseph D. Soloveitchik, *Shiurim Lezeicher Avi Mori*, p.30 n. 58; but see *Teshuvot R. Akiva Eiger* #9.

60. See letter of the Chazon Ish printed in *Minchat Shlomo* p. 93.

hot air to enter, one has not caused any change in the operation of the refrigerator. The refrigerator is operational before opening the door; once the temperature reaches a certain degree, the motor will start. Hence, Rabbi Auerbach states that even the Chazon Ish would concede that causing the motor to start early cannot be considered "building." Accordingly, all agree that no biblical prohibition is violated by causing the motor to run prematurely.

A rabbinic prohibition, though, is violated by starting a current according to the *Beit Yitzchak*. Therefore, possibly one violates at most a rabbinic prohibition in causing the motor to run.⁶¹ Rabbi Auerbach and others (see note 58) maintain that a number of factors are present in this case so as to render this rabbinic prohibition inapplicable. First, by opening the door one does not directly cause the motor to run since there is a thermostat that serves as an intermediate regulator.⁶² Indirect actions are generally permitted only in cases of great monetary loss.⁶³ But Rabbi Auerbach rules that rabbinic prohibitions performed in an indirect fashion are permitted even absent potential monetary loss. Since one does not intend to cause the motor to go on, this action is an *unintentional* side effect (*davar she'eino mitkaven*) and therefore permitted.⁶⁴

61. The sparks caused by the running of the motor do not constitute a halachic problem according to Rabbi Auerbach (see section II:F above). However, Rabbi Yaakov Breisch, who rules stringently in this matter, believes that the generation of these sparks does constitute a halachic problem. (See *Chelkat Yaakov* 1:54.)

62. Rabbi Auerbach writes at length why this is considered to be an indirect action; *Minchat Shlomo* pp. 90-91.

63. See Ramo, *Shulchan Aruch, Orach Chaim* 334:22 and *Biur Halacha* "degram kibui mutar."

64. The use of electric card keys to open hotel rooms on Shabbat or Yom Tov is more problematic, as none of these otherwise permissive factors are present. Using such a card closes a circuit which, according to the Chazon Ish, is a biblical violation of either building (*boneh*) or finishing an appliance (*ma'keh bepatish*). Rabbi Auerbach, for reasons explained above, states that since this "building" or completing of an appliance (the lock) is transient, no violation occurs even according to the Chazon Ish. Those who base the prohibition to use electricity during Shabbat on *molid* (creating) would rule that a rabbinic violation is present. Since absent great need one should, even according to

Moreover, Rabbi Auerbach argues by way of *reductio ad absurdum*, if one rules stringently and prohibits opening the refrigerator door lest it cause the motor to run prematurely, then it should also be forbidden to open the windows or curtains, or bring hot foods in close proximity to the refrigerator. These actions, he points out, also cause the motor to run earlier than it would have otherwise.

Rabbi Yaakov Breisch⁶⁵ objects to this reasoning and rules that indirectly causing prohibited actions cannot be permitted on a regular basis. Rabbi Auerbach counters that only when one intends the resultant action to occur is it prohibited if performed regularly.

Common practice among observant Jews in America appears to accept those authorities who allow the opening of the refrigerator door even if the motor is not running.

B. Telephones

Five different aspects of using the telephone are relevant from a halachic perspective: lifting the receiver, dialing, talking, holding the receiver, and returning the receiver to its place.

Lifting the receiver involves a number of possible problems. Most significantly, it closes an electric circuit, thereby causing a current flow. If one adopts the position of the Chazon Ish, one has violated a biblical prohibition; Rabbi Schmelkes would assert that a rabbinic prohibition has been transgressed. Additionally, in some (but not many) telephone systems, a light goes on when a person lifts a phone off the hook. Rabbi Levi Yitzchak Halperin (*Maaseh Choshev* 1:60) advances the argument that causing the dial tone to work violates the rabbinic prohibition of "making a noise be heard"

Rabbi Auerbach, function as if creating electricity is a rabbinic violation, it is prohibited to use such a card on Shabbat or Yom Tov. It is, however, permitted to ask a Gentile to open one's hotel room if no other options are available. So, too, many authorities would permit one, in a case of need, to use the card in an unusual way (*kelachar yad*) to open the door. Cards which are mechanical, and not electric, may be used on Shabbat and Yom Tov.

65. *Chelkat Yaakov* 1:54, based on the comments of Rabbeinu Chananel *Shabbat* 120b s.v. "Amar Rav Yehuda."

(*hashma'at kol*).⁶⁶ This seems incorrect, however, as that sound is not audible to any other person, and in fact most authorities⁶⁷ who discuss telephones do not mention the noise made by the dial tone as a halachic problem.⁶⁸

The next area of discussion concerns the prohibitions related to dialing. Again, circuits are completed, bringing about a biblical prohibition according to the Chazon Ish, a rabbinic prohibition according to Rabbi Schmelkes, and possibly no prohibition according to Rabbi Auerbach. Rabbi Benzion Uziel (*Mishpetei Uziel* 1:13) writes that when dialing, one has violated the biblical prohibition of "the final blow" (*ma'keh bepatish*) by turning the telephone into a functional object. Rabbi Ovadia Yosef (*Yabia*

66. The Sages prohibited making a loud noise on Shabbat to prevent one from violating the biblical prohibition of fixing an instrument or utensil. The *rishonim* debate whether the Sages limited their prohibition to making a noise with musical instrument or whether it applies even to making a noise with objects such as a door knocker. The Ramo adopts the stricter position; see *Shulchan Aruch, Orach Chaim* 338:1. In addition, see *Biur Halacha* s.v. *hoil vehakli meyuchad lekach*.

67. They discuss whether causing the phone to ring and speaking on the telephone are a violation of "making a noise." See *Minchat Shlomo* pp. 75-76; *Achiezer* 4:6; *Beit Yitzchak* 2:31; *Tzitz Eliezer* 1:20:10 and *Yabia Omer* 1:20.

68. Another possible problem associated with lifting the receiver is that it might cause a wire to be heated, which constitutes a biblical prohibition. However, as Rabbi Shmuel David (*Shealot Uteshuvot Meirosh Tzurim* p. 503) writes, one need not be concerned with this since in most cases when the telephone is used, no filaments are heated. Since lighting this filament is not intended (*davar she'eino mitkaven*) and is not an inevitable result of lifting the phone, it is permitted. It may, however, be a *safek psik resha leshe'avar*. When one is not sure that a prohibited action will occur *in the future*, it is permitted to perform the act despite the uncertainty. However, if a prohibited action may occur as a result of already existing circumstances, some authorities prohibit this action; see Rabbi Akiva Eiger's comments to *Shulchan Aruch, Yoreh Deah* 87 "yesh omrim deasur lachtot haesh" and *Taz, Shulchan Aruch, Orach Chaim* 316:3. In our case, the question as to whether the filament will be heated depends on circumstances which exist prior to lifting the phone (namely, the distance between the phone and the phone center and the degree of electrical resistance). The consensus of rabbinical opinion appears to be lenient in this matter. See generally, *Melamed Lehoil* 3:102; *Biur Halacha* 316 "velachen yesh leezaheir;" *Minchat Shlomo* pp. 88-90; and Rabbi Levi Yitzchak Halperin, *Maaseh Choshev* p. 56.

Omer 1:20) disagrees because the phone is a fully functional object prior to the dialing. Dialing a number is considered to be merely using the phone, not fixing it.

Rabbi Yitzchak Schmelkes and Rabbi Chaim Ozer Grodzinski⁶⁹ assert that since dialing causes a phone to ring, one has violated the rabbinic prohibition of causing noise to be heard (*hashma'at kol*). Rabbi Shlomo Zalman Auerbach (*Minchat Shlomo* pp. 75-76) suggests that since it only indirectly causes the phone to ring, one may be lenient, because indirect causation of rabbinic prohibitions is permissible on Shabbat.⁷⁰

The next issue is speaking on the telephone. Rabbi Yitzchak Schmelkes (*Beit Yitzchak* 2:31) states that one violates the rabbinic prohibition of "causing a noise to be heard" (*hashma'at kol*) since one's voice is heard elsewhere due to the telephone. Rabbi Auerbach and Rabbi Eliezer Waldenberg, however, disagree⁷¹ in light of Ramo's ruling (*Shulchan Aruch, Orach Chaim* 338:1) that no prohibition of "causing a noise to be heard" applies when the sound is created by a human voice.⁷²

Talking on the telephone causes an increase in the current used. Whether increasing current usage is prohibited on Shabbat is

69. *Beit Yitzchak* 2:31; *Achiezer* 4:6.

70. Rabbi Auerbach expresses his reservations about this position. Since the act of causing a phone to ring is always performed in this manner, this may no longer be defined as "indirect causation" insofar as the laws of Shabbat are concerned; see *Baba Kama* 60a. Rabbi Auerbach, in an article appearing in the Torah journal *Sinai* (5705, p.152), advances another reason to rule leniently in this regard. The Rabbis prohibited making a loud noise to prevent one from fixing a machine or instrument. When one causes the phone to ring in another's home, the likelihood of a person's going to another's home to fix his telephone ringer in case of dysfunction is remote. It is quite possible that the rabbinic prohibition is inapplicable in such circumstances.

71. *Minchat Shlomo* p. 67 and *Tzitz Eliezer* 1:20:10.

72. Rabbi Schmelkes, though, could respond that Ramo's ruling is limited to a case when the voice is heard exclusively through speech without the aid of any instrument. The question as to whether speaking into a microphone is considered to be a violation of "causing a noise to be heard" is contingent upon this disagreement between Rabbi Schmelkes and Rabbi Waldenberg; see *Iggerot Moshe, Orach Chaim* 4:84 and *Minchat Shlomo* pp. 66-68.

a major halachic issue.⁷³ Rabbi Auerbach maintains that there are no halachic prohibitions associated with causing an increase or decrease in current, in appliances without a heating element or glowing filament.

Upon close examination, Rabbi Auerbach appears to be correct even according to those who typically disagree with him. For example, while the Chazon Ish states that completion of a circuit constitutes an act of building, once a circuit has been completed, one does not "build" anything by increasing current. Similarly, Rabbi Schmelkes, who states that creating a current violates a rabbinic prohibition to create something new, probably would concede that one may increase current. The paradigmatic example he uses of creating something new is the prohibition to create a new scent in a garment. However, it is permitted according to many authorities to increase the intensity of a fragrance in a garment once a scent already exists, because the prohibition is limited to *creating a new scent*.⁷⁴

Those who believe that turning on an appliance violates the prohibition of "the final blow" (*ma'keh bepatish*), would limit this assertion to turning on the appliance and not increasing current. After the appliance has been turned on, it has been rendered into a usable item and no further prohibition of "the final blow" is violated when increasing current. Finally, even if one views the creation of sparks as a halachic problem (see section II:F above), no such problem exists when increasing current because an increase in

73. Professor Zev Lev discusses this issue at length in "*Molid Zerem Chashmali BeShabbat*," *Techumin* 2:35-58 (5741). According to some, this issue is related to whether causing more electricity to be generated at the power station constitutes a halachic problem. An increase in current may cause additional generation of electricity and hence, those authorities who rule stringently in this matter would forbid one to cause an increase in current. However, most believe one need not be concerned with this possibility; see *Shemirat Shabbat Kehilchatah* 1:23:137; see also note 81.

74. *Minchat Shlomo*, p. 110. This is the view of the *Shulchan Aruch Ha-Rav*, *Orach Chaim* 511:7. However, *Mishnah Berurah* 511:26 and *Aruch Ha-Shulchan*, *Orach Chaim* 511:12, both assert that this prohibition encompasses even adding scent to a garment that already has a scent.

current does not lead to increased creation of sparks.

Rabbi Yitzchak Yaakov Weiss and Rabbi Binyamin Yehoshua Silber⁷⁵ disagree and prohibit increasing current for two reasons. First, it is far from universally accepted that one may increase the intensity of a fragrance already present in a garment (see n. 74). Second, increasing current may not be analogous to increasing the intensity of a scent. One can argue that in many instances the increased current is what enables a desired activity to take place and, thus, is more analogous to adding on an entirely different additional scent to a garment,⁷⁶ which all agree is prohibited.

Whether one is permitted to increase current has many halachic ramifications. A few examples are adjustment of (not to turn on or off) a hearing aid,⁷⁷ speaking directly to someone wearing a hearing aid,⁷⁸ going up on an automatic elevator,⁷⁹ and riding an escalator.⁸⁰ The consensus of rabbinic opinion appears to side with Rabbi Auerbach on this matter.⁸¹

The last set of problems that arises from the use of a telephone on Shabbat are "hanging up" and returning the phone to its holder. The Chazon Ish would prohibit these acts since one opens circuits, thereby violating a biblical prohibition of destroying (*soter*). As explained above (section II), many authorities disagree with the Chazon Ish's position on this issue.⁸²

75. *Minchat Yitzchak* 3:38; 3:60; and *Brit Olam* "Mechabe' Umavir" no. 2.

76. *Maaseh Choshev* p. 47 and Rabbi Halperin's *Maalot BeShabbat* p. 166.

77. See *Shemirat Shabbat Kehilchatah* 34:28.

78. Rabbi Auerbach (*Minchat Shlomo* p. 67) permits doing so but Rabbi Feinstein (*Iggerot Moshe, Orach Chaim* IV:85) permits doing so only in extenuating circumstances.

79. For an excellent review of the extensive halachic literature discussing the use of automatic elevators on Shabbat, see *Encyclopedia Talmudit*, "Electricity" 18:691-704.

80. See *Shemirat Shabbat Kehilchatah* 23:52.

81. *Yabia Omer* 1:19; *Shemirat Shabbat Kehilchatah* 23:52 (and elsewhere); *Shealot Uteshuvo'ot Meirosh Tzurim* p. 504; Rabbi Yisrael Rosen, "Maalit Aotomatit BeShabbat," *Techumin*, 5:75 (5744).

82. There have been two other suggestions of prohibitions that one would violate if one returns the phone to its holder on Shabbat. First, by hanging up the

C. Radios and Televisions

Turning on radios or televisions involves completion of a circuit; current flow, as shown above, involves a biblical prohibition according to the Chazon Ish, and a rabbinic prohibition according to Rabbi Schmelkes. Since newer radios and televisions do not contain heating elements or glowing filaments, Rabbi Auerbach raises the theoretical possibility that turning on the radio per se does not involve any prohibition, as he does not accept either the opinion of the Chazon Ish or Rabbi Schmelkes as correct. However, it is well established that by turning on a radio, one violates the rabbinic prohibition of "causing a noise to be heard with an instrument designed for this purpose" (*hashma'at kol al yedei keli hameyuchad lekach*). Thus, even Rabbi Auerbach rules that a rabbinic prohibition is present when one turns on a radio.

Whether one may raise the volume on Shabbat depends upon whether one is permitted to increase current flow on Shabbat.⁸³ However, whether moving the dial from one station to another constitutes a violation of the rabbinic prohibition of "making a noise be heard" is disputed. Rabbi Waldenberg (*Tzitz Eliezer* 3:16:12:5) believes that a violation takes place because no coherent sounds are heard in-between stations. By tuning in the desired station, one has caused noise to be heard which would not have been heard previously. Rabbi Auerbach (*Minchat Shlomo* p. 67) disagrees because the broadcasters are the ones who create the sound and only they violate the prohibition of "creating a noise that is heard."

D. Static Electricity

Whether it is permissible to separate (or wear) clothes on Shab-

phone, one makes the person listening on the other end hear a dial tone. Some authorities assert that this is a violation of the rabbinic prohibition "to cause a noise to be heard." Second, one opinion states that returning the phone to its holder violates the biblical prohibition of "the final blow" (*ma'keh bepatish*); Rabbi Y. A. Zalmonowitz, *Noam*, 4:178; for those that dispute this view, see text accompanying note 68.

83. For reasons explained in note 44, no prohibition to reduce current exists.

bat if that action will generate static electricity is a topic that a number of decisors have addressed. If one adopts Rabbi Auerbach's aforementioned lenient ruling regarding the creation of sparks during use of a circuit, one might be lenient in this regard as well. Indeed, Rabbi Auerbach is cited (*Shemirat Shabbat Kehilchatah* 15:72) as maintaining that the unintentional creation of static electricity from clothes does not pose a halachic problem.

Rabbi Eliezer Waldenberg (*Tzitz Eliezer* 7:10) rules leniently in this regard also. Rabbi Waldenberg argues that these sparks last hardly a moment and have no impact whatsoever. In addition, there is no precedent for these sparks in the labor performed during the construction and functioning of the tabernacle, and hence there is no precedent whatsoever to classify the creation of these sparks as forbidden acts of labor. Therefore, he rules that the unintentional creation of static electricity does not pose a halachic problem.⁸⁴ At the conclusion of his responsum, Rabbi Waldenberg adds another consideration to be lenient in this regard — that one does not intend to create the static electricity.

Rabbi Ovadia Yosef's primary reason to rule leniently in this matter (*Yabia Omer* 5:27 and *Yechave Daat* 2:46) is based on the lack of intent to create the sparks. Rabbi Yosef writes that unintentional acts from which no benefit is derived (*pesik resha delo nichah lei*) are permitted if the underlying prohibition is itself only a rabbinic violation; he agrees that if a biblical violation would occur, they are prohibited. This leniency is not universally accepted.⁸⁵

84. Rabbi Waldenberg adds a ground that appears to be factually incorrect. He states that the sparks created from clothes are electrically different from the sparks created when closing and opening a circuit, since the latter can cause a fire to ignite and the former cannot; it is possible that his first reason is connected conceptually to this.

85. See e.g. *Chazon Ish*, *Orach Chaim* 50:5 who disagrees and rules stringently in this matter. The *Mishnah Berurah's* position appears to be contradictory. Compare and contrast *Mishnah Berurah* 321:57 (especially *Shaar Hatziyun* 68); 340:17; *Shaar Hatziyun* 337:2 and 337:10.

All, however, accept that it is permitted to use a product on Shabbat which is designed to *prevent* the generation of static electricity in clothes.

Summary

The use of specific appliances is enveloped in the controversy of electricity generally. Many authorities permit opening refrigerator doors on Shabbat whether the motor is on or off. Some permit this only when the motor is on. While most authorities agree that the use of telephones is prohibited on Shabbat, Rabbi Auerbach asserts that it is possible that telephones are not prohibited. While all agree that neither radios nor televisions can be used on Shabbat, there is dispute over the nature of the prohibition. The unintentional generation of static electricity is permitted.

V. Timers on Shabbat and Yom Tov

The use of timers on Shabbat and Yom Tov involves two distinct halachic issues, one of which has been settled and one of which has not. The first is whether it is permitted to set a timer on Friday so that a prohibited action will take place on Shabbat. The second is whether it is permitted to adjust that timer on Shabbat in order to change the time when the action will occur.

A. Using Timers Set on Friday

Setting a timer on Friday so that a prohibited act will occur automatically on Shabbat seems at first glance to be very similar to a well-established halachic rule. Based on a Talmudic discussion (*Shabbat* 17b-18a), Rambam (*Shabbat* 3:1) states:

It is permitted to start an action [*melacha*] on Friday even though that action is completed on Shabbat, since it is only forbidden to start work on Shabbat. However, when the work is done by itself on Shabbat, it is permitted to benefit from that work.

So too, *Shulchan Aruch* (*Orach Chaim* 252:1) states:

It is permitted to start an action on Friday near darkness even though the work cannot be completed on Friday and can only be finished on Shabbat.

Two exceptions to this rule were established. The Talmud

(*Shabbat* 47b) states that one may not place a dish of water around a flame (which is emitting sparks) on Friday lest one shift the water on Shabbat and thus extinguish the flame.

More relevantly, the Talmud (*Shabbat* 18a) quotes in the name of Rava that it is prohibited to add wheat on Friday to a water mill that runs automatically on Shabbat, since the mill produces a large amount of noise and this noise denigrates Shabbat (*zeluta deShabbat*).⁸⁶ Furthermore, people will say that the owner of the mill is running it on Shabbat (Ramo, *Orach Chaim* 252:5). Rav Yosef is quoted in the Talmud as disagreeing with Rava and permitting any action done prior to Shabbat even if it creates large amounts of noise.

Rishonim disagree as to which opinion, Rava's or Rav Yosef's, is accepted as normative by halacha. Rabbenu Tam, Rambam and Rif all accept the opinion of Rav Yosef.⁸⁷ On the other hand, Rabbenu Chananel, Rosh, *Semag* and *Semak* all appear to accept Rava's approach.⁸⁸ Rabbi Karo in the *Shulchan Aruch* states that it is permitted to place wheat in a self-grinding water mill on Friday (*Orach Chaim* 252:5). Rabbi Isserles (Ramo), however, adds:

There are those authorities who prohibit placing wheat in the mill on Friday. We [Ashkenazic Jewry] should worry about the prohibition of creating sound. This is the proper approach *ab initio* [*lechatchila*]. In cases of financial loss, it is permitted to be lenient.

Based on this stricture of the Ramo, there are some who claim that using a timer on Shabbat should be prohibited when it creates audible or visible action.⁸⁹ For example, absent some significant

86. Rashi, *Shabbat* 18a.

87. Tosafot *Shabbat* 18a; Rif on *id.*; Rambam quoted in *Beit Yosef*, *Orach Chaim* 324 "ain."

88. Rabbenu Chananel commenting on *Shabbat* 18a; Rosh on *id.*; see generally *Beit Yosef* commenting on *Orach Chaim* 252 and 324 for a complete list of authorities.

89. *Responsa Ben Yehudah* 151; *Goren David*, *Orach Chaim* 15; *Etan Aryeh* 110-111.

need, both Rabbi Feinstein⁹⁰ and Rabbi Auerbach (*Minchat Shlomo* pp. 68-69) agree that this rule prohibits one from playing a radio on Shabbat even if it is left on for all of Shabbat. Placing a radio on a timer is analogous to putting wheat into a water mill. Both cause noise on Shabbat and arouse suspicion that its owner has violated the laws of Shabbat. Hence, they rule that it is rabbinically prohibited to set a radio on a timer or to let it run the entire Shabbat.⁹¹

Others have advanced different reasons to prohibit timers on Shabbat. Some claim that merely because the Talmud permitted finishing a prohibited action on Shabbat when it is started on Friday, it does not mean that a timer which does the entire action on Shabbat is permitted.⁹² Others have argued that just as it is forbidden to place a dish of water around a sparkling flame (see above) *lest one adjust it*, so too, it is prohibited to use a timer lest one set it on Shabbat.⁹³ Finally, others argue that the only time it is permitted to start an action on Friday and finish on Shabbat is when no benefit is derived from the action on Shabbat. However, when a prohibited action is done for the sake of having the product on Shabbat, it is prohibited.⁹⁴

90. *Iggerot Moshe, Orach Chaim* 4:84. Rabbi Feinstein writes that the same prohibition applies to the use of television on Shabbat.

91. It would appear to these authors that this ruling is inapplicable to taping a television program on a video recorder on Shabbat (assuming the television is left off). In our opinion, that should be permitted because taping creates no visible sound or image on Shabbat and does not cause any disruption of Shabbat.

92. In fact, some maintain (based on *Nemukei Yosef, Bava Kama* 22a) that a biblical prohibition is violated; see *Responsa Ben Yehuda* 151.

93. *Etan Aryeh* # 111; *Mishpatei Uziel* 1:223.

94. For a discussion of this, see *Magen Avraham* commenting on *Shulchan Aruch, Orach Chaim* 307:3; *Iggerot Moshe, Orach Chaim* 4:60. Rabbi Feinstein writes that use of timers to automatically regulate machines to perform work forbidden to Jews on Shabbat is generally forbidden, with the exception of turning lights on and off. He believes that use of timers would severely disrupt the Shabbat atmosphere, since all of one's work could be performed by machines. Rabbi Feinstein asserts that just as the Sages did not want, and therefore forbade, our asking non-Jews to perform work on our behalf on

The consensus of the *acharonim* as well as the accepted practice is not in harmony with any of the opinions which prohibit timers. As the *Encyclopedia Talmudit* ("Electricity" 18:679) states:

Many of the *acharonim* permit one to set a Shabbat clock on Friday — and this is the common practice — even those who prohibit creating a sound permit the use of timers. . . since all know that these timers are set before Shabbat.

Essentially, since it has become common practice to use timers, there is no appearance of impropriety when timers are used. This approach has been accepted by most contemporary decisors such as Rabbi Waldenberg, Rabbi Breisch, Rabbi Henkin, Rabbi Auerbach, Rabbi Ovadia Yosef, the Chazon Ish, Maharam Schick and many others.⁹⁵

B. Adjusting Timers on Shabbat and Yom Tov

Before discussing whether a substantive prohibition exists to adjust a timer on Shabbat and Yom Tov, it is necessary to address a threshold question: are timers *muktza*? If timers are *muktza*, it is obviously prohibited to adjust them.

In a brief and cryptic responsum, Rabbi Moshe Feinstein asserts, without explanation, that one may not adjust a timer during Shabbat and Yom Tov because the timer is *muktza*.⁹⁶ Other decisors have offered reasons for this assertion. Rabbi Benjamin

Shabbat for fear that this would disrupt the Shabbat atmosphere (see *Rambam Hilchot Shabbat* 6:1), so too the Sages would not want machines to do work on our behalf during Shabbat. Rabbi Feinstein appears to be the lone authority to adopt this approach.

95. See *Tzitz Eliezer* 1:20:9; *Chelkat Yaakov* 1:49; *Edut Leyisrael* p. 122; *Minchat Shlomo* p. 66; *Yechave Daat* 2:57; *Chazon Ish, Orach Chaim* 38:3 and 38:4; *Maharam Shick, Orach Chaim* 157; *Minchat Moshe* 8; *Even Yekara* 3:85; *Yaskil Avdi, Orach Chaim* 4:17.

96. *Iggerot Moshe, Yoreh Deah* 3:47:4. He states that some adjustments are forbidden on a biblical level and others are not, but he does not offer a rationale for these assertions.

Silber states⁹⁷ that a timer is *muktza* "due to concern for monetary loss" (*muktza machmat cheesaron kis*).

Rabbi Auerbach (*Minchat Shlomo*, p. 111) and Rabbi Ovadia Yosef (*Yabia Omer* 3:18:2) disagree and rule that timers are not *muktza*. They advance a number of reasons including the argument that the fact that the owner is presently using the timer makes it absurd to state that it is *muktza* due to a concern for monetary loss. This category of *muktza* is limited to items which are not regularly used and carefully stored due to concern that the item be damaged. However, one cannot reasonably assert that a timer is withheld from use *as it is presently being used*.⁹⁸ This argument appears to be correct; it is difficult to grasp why a timer should be considered *muktza* if it is permitted to adjust it on Shabbat.⁹⁹

Assuming that timers are not *muktza*, four distinct issues need to be addressed.

- 1) May one adjust the timer so that the appliance will start earlier than originally intended, (e.g., move the dial so that a light scheduled to go on at midday goes on at 11 a.m.)?

This question is dependent on whether adjusting such a timer involves direct or indirect causation (*grama*) of the prohibited work. As a general rule, actions done through indirect causation only are on a much lower level of prohibition on Shabbat; in many circumstances they are completely permitted. The Talmud (*Shabbat* 120b) states:

97. *Oz Nidberu* 3:25 and 4:46:7. See *Tzitz Eliezer* 1:20:9, where Rabbi Waldenberg asserts that timers are *muktza* due to other considerations. Rabbi Breisch, *Chelkat Yaakov* 1:58 and 2:45, and Rabbi Weiss, *Minchat Yitzchak* 2:110, also consider timers to be *muktza*.

98. Moreover, since timers (according to Rabbi Auerbach) only indirectly cause work to be done, they cannot be considered to be in the category of *muktza* known as "utensils of prohibited usage" (*kli shemelachto leissur*).

99. If it is prohibited to use or adjust a timer, then such an appliance could be *muktza*. However, *muktza* cannot be the source of the prohibition and can only reflect a prohibition based on some other status.

[Deuteronomy 12:4] states "One may not do any work;" however, work done directly is prohibited, but work done indirectly is permitted.

The definition of "indirect" for the purposes of Shabbat, however, is in dispute. The resolution of this issue resides to a great extent in the harmonization of two apparently contradictory Talmudic texts. In *Shabbat* 120a the Mishnah states that it is permitted to place barrels of water in the path of a fire with the intent that the barrels catch fire, burst, and their content extinguish the flames. The Talmud (*Shabbat* 120b) explains that this is an example of indirect causation which is permitted in cases of need. Elsewhere the Talmud (*Bava Kama* 60a) distinguishes between tort law and Shabbat rules, by stating that for the purposes of Shabbat rules one is responsible for indirectly caused activity (but in tort one is not). The example the Talmud gives is one who is winnowing (separating wheat and chaff) on Shabbat violates the biblical prohibition by throwing the wheat into the air and letting the wind separate the wheat from the chaff. This is prohibited even though it is done indirectly and requires the presence of an additional force (the wind) to complete the action. The question that emerges is why is the barrel case permitted and the winnowing case forbidden?¹⁰⁰

Three answers are given. The first answer posits that the critical distinction is the time delay. The barrel case is permitted because the fire will not destroy the barrels until a considerable amount of time has elapsed, whereas the wind separates the wheat and chaff immediately. According to this definition, because there is a clear time delay between the action and the effect, this would be indirect causation. Since actions done via indirect causation are permitted on Shabbat in case of need or in order to facilitate performance of a mitzvah, a timer set to go on at midday could be

100. *Biur Halacha, Orach Chaim* 334:22 "*degram kebui mutar*" notes that the accepted opinion is that indirect causation is permitted in all categories of prohibited work, and not just extinguishing. For a general review of these issues, see *Afikei Yam* 4:2 and *Har Tzvi, Orach Chaim* 148.

adjusted at 9 a.m. so that the appliance will go on at 10 a.m., if this were a case of need or mitzvah. On Yom Tov, indirect causation is permitted even absent special need, and thus such adjustments are always permitted according to this reasoning.¹⁰¹ This is the view of Rabbi Ovadia Yosef and others.¹⁰²

The second position, that of Rabbi Joseph B. Soloveitchik and others, states that the critical factor is whether the additional force needed to finish the action is present at the time of human activity. Winnowing in the wind is prohibited only when the wind is blowing at the time the wheat is thrown into the wind; the barrel case is permitted since one is placing the barrels away from the fire. Placing the barrels actually in the fire would be prohibited.¹⁰³ Since, when adjusting a timer the additional force needed to finish the action, namely the rotation of the dial, is present at the time of human activity, all adjustments that hasten an action are prohibited. Thus, Rabbi Soloveitchik rules that under no circumstances may one adjust the timer so that an appliance will begin to operate earlier than expected.

A third view asserts that the critical factor is whether the indirect process used is the normal process. If the indirect process is the normal one, it is prohibited on Shabbat. Otherwise it is permitted. The barrel case is permitted only because it is not the normal manner to extinguish fire through a time delay. Winnowing, however, is frequently done through wind power.¹⁰⁴ According to this approach, adjusting a timer is prohibited since it was designed to be used in this manner; however, placing ice cubes (or hot water) on a thermostat to increase the flow of heat (or cold

101. *Shulchan Aruch, Orach Chaim* 334:22 (and *Biur Halacha*).

102. *Yabia Omer* 3:18; *Ketav Sofer, Orach Chaim* 55; *Zera Emet, Orach Chaim* 44. See also, *Maharam Shick, Orach Chaim* 157; *Chazon Ish, Orach Chaim* 38:2; *Chelkat Yaakov* 1:49.

103. Rabbi Soloveitchik's position is fully explained in an article by Rabbi Hershel Schachter, *Maseh Vegramah Behalacha, 1 Beit Yosef Shaul* 70-72 (1985). Rabbi Schachter cites both earlier and later authorities who agree with this approach.

104. *Even Ha'ezer, Orach Chaim* 328; *Meorei Eish* pp. 201-202. See *Achiezer* 3:60 for a further explanation of this position.

air), would be permitted since that is an indirect and unusual manner of making the adjustment.

- 2) May one adjust the timer so that an appliance operates later than originally intended? (E.g., move a dial on a timer so that a light set to go on at midday, now goes on at 2 p.m.)

In this type of adjustment, no prohibited act occurs because one merely is maintaining the status quo of no work taking place. Thus nearly all authorities permit this type of adjustment.¹⁰⁵ However, Rabbi Auerbach (*Minchat Shlomo* p. 111) cautions that this permissive ruling most likely does not apply to those timers where the timer is adjusted by removing and reinserting a peg.¹⁰⁶ In those timers where the dial is rotated, adjustment to delay current flow is permitted.¹⁰⁷

- 3) May one adjust the timer so that the electric current is extinguished earlier than expected? (E.g., a light on a timer is set to go off at midday and one wants to move the dial so as to turn the light off at 10 a.m.).

Adjusting a timer to extinguish an appliance prematurely involves the same considerations as adjusting the timer to extend the current flow. According to Rabbi Joseph B. Soloveitchik's

105. *Minchat Shlomo* p.111. Rabbi Feinstein (*Iggerot Moshe, Orach Chaim* 4:60) writes that a Sabbath violation is caused by delaying the onset of current, but he does not explain the reason for his position. See *Oz Nidberu* 8:32 where Rabbi Silber argues that any adjustment of a timer is a violation of building (*boneh*). It is possible that the Chazon Ish felt that way also; see *Chazon Ish, Orach Chaim* 38:2.

106. Only removing the peg is permitted, since that delays the onset of the electrical flow. Reinserting the peg to turn the current off at the time desired is only permitted if one accepts those authorities discussed above that one can hasten the extinguishing of an appliance.

107. *Shemirat Shabbat Kehilchatah* 13:25, n. 94, cites Rabbi Auerbach as maintaining that one may also delay the onset of current in those timers whose adjustment involves the pressing of a button to allow movement of the dial and releasing this button to set the dial.

definition of indirect causation, such an action is forbidden. If one accepts time delay as the critical factor in determining whether an action is a result of direct or indirect action, then in case of need or mitzvah one may adjust the timer to extinguish current flow earlier than expected; *Yabia Omer* 3:18.

One distinction, though, does exist between causing current to flow or be terminated. When the current flow turns on a light, a biblical violation occurs, whereas terminating a current flow involves at most a rabbinic violation (see sections I and II). Rabbi Auerbach (*Minchat Shlomo* p. 110) states that since the halacha is unclear as to which definition of indirect causation is correct, one should avoid manipulating a timer to hasten an action which, if prohibited, would be a biblical violation. He does however permit the adjusting of timers where only rabbinic prohibitions are present.

- 4) May one adjust the timer so that the electric current is extinguished later than expected? (E.g., a light is set to go off at midday and one wishes to move the dial so as to delay the turning off until 2 p.m.).

Some authorities maintain that delaying extinguishing a light is forbidden, since it is analogous to adding fuel to a fire, which is a violation of "burning" (*mavir*).¹⁰⁸ Most authorities¹⁰⁹ argue that this is incorrect and that it is analogous to shutting a window so as to prevent the wind from extinguishing a flame — one is only maintaining the status quo by removing an impediment to its continuation, as in situation (2) (moving a dial on a timer so that a light set to go on at midday, now goes on at 2 p.m.)

Summary

While initially a subject of some controversy, it has now become accepted that one may use a timer set on Friday to control all appliances. The issue of adjusting timers on Shabbat has yet to be settled.

108. *Yaskil Avdi*, *Orach Chaim* 7:23 and *Oz Nidberu* 8:32. 109. *Minchat Shlomo*, p. 111; *Yabia Omer* 3:18.

Some authorities prohibit any adjustment of a timer on the grounds that it is *muktza*. Even if timers are not considered to be *muktza*, some authorities prohibit adjusting a timer to start or terminate current flow earlier than expected. Other authorities, accepting a different understanding of causation, permit this. Adjusting a timer to delay the onset of current flow appears not to violate any Shabbat prohibition other than *muktza* according to most authorities.

Conclusion

The use of electricity on Shabbat and Yom Tov is a relatively new, and exceedingly complex, area of halacha. The variety of positions taken by the decisors is broad, and these differences are extremely relevant to the conduct of observant Jews. It is the near unanimous opinion that the use of incandescent lights on Shabbat is biblically prohibited. Beyond that, there is little agreement. Some authorities maintain that any time a circuit is opened or closed a biblical violation occurs. Other authorities insist that the use of electricity absent lights is only a rabbinic prohibition. Still other authorities accept that *in theory* the use of electricity without the production of light or heat is permitted — although even those authorities admit that such conduct is prohibited, absent great need, because of tradition.

The variety of grounds prohibiting the use of electricity is reflected in discussion of specific appliances. Many authorities permit opening a refrigerator door on Shabbat even if the motor is off; some do not. While all concede that the radio and television cannot be used on Shabbat and Yom Tov, the nature of the prohibition is in dispute. So, too, all but Rabbi Auerbach concede that a telephone cannot be used on Shabbat (even he prohibits it absent great need) — however there is no consensus as to the source of the prohibition. The use of timers is equally in dispute. While nearly all concede that timers may be set on Friday to work on Shabbat, adjusting such timers on Shabbat and Yom Tov is still in dispute.