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(12) **United States Design Patent**
Gou

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(54) **CONTROLLING APPARATUS FOR HOT AIR BLOWING TOOL FOR MELTING SOLDER**

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(**) Term: **15 Years**

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(51) **LOC (12) Cl.** **15-09**

(52) **U.S. Cl.**
USPC **D15/144.2**

(58) **Field of Classification Search**
USPC D8/29, 29.1, 29.2, 30, 70, 71; D10/46, D10/50, 78; D13/123, 133; D14/126; D15/122, 144, 144.1, 144.2; D24/107, D24/232
CPC B23K 3/033; B23K 3/0369; B23K 3/08; G05D 23/2401
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

D137,465 S * 3/1944 Nielsen D15/144
D274,882 S * 7/1984 Rittmann D15/144
D277,636 S * 2/1985 Rittmann D15/144
D415,435 S * 10/1999 Yoshimura D10/50
D527,402 S * 8/2006 Loch D15/144.2

D596,654 S * 7/2009 Kita D15/144
D656,525 S * 3/2012 Mochizuki D15/144.2
D678,373 S * 3/2013 Kita D15/144.2
D703,715 S * 4/2014 Kita D15/144
D762,254 S * 7/2016 Kita D15/144.2
D762,754 S * 8/2016 Kita D15/144.2
D780,241 S * 2/2017 Teraoka D15/144.2

(Continued)

FOREIGN PATENT DOCUMENTS

CN 305211207 * 11/2019

OTHER PUBLICATIONS

Yihua 8786D, posted on alibaba.com, no posted date given, no production date given, [online], [site visited Apr. 24, 2020], URL: https://www.alibaba.com/product-detail/2-function-in-1-rework-station_62219297251.html?spm=a2700.icbuShop.41413.28.246a2324sL8bW4&fullFirstScreen=true (Year: 2020).*

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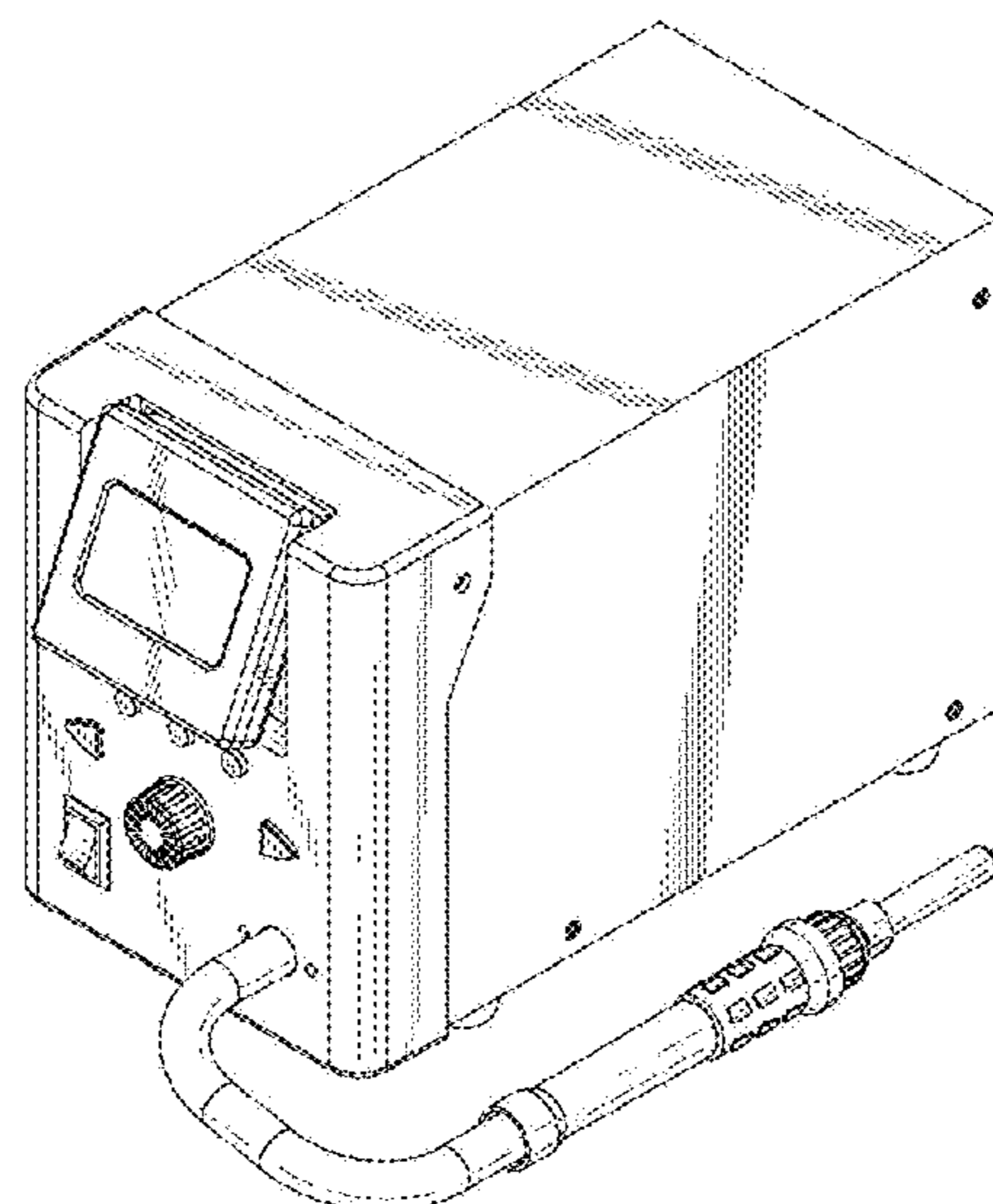
(57) **CLAIM**

The ornamental design for a controlling apparatus for hot air blowing tool for melting solder, as shown and described.

DESCRIPTION

FIG. 1 is a perspective view of the controlling apparatus. FIG. 2 is a front view thereof; FIG. 3 is a rear view thereof; FIG. 4 is a left side view thereof; FIG. 5 is a right side view thereof; FIG. 6 is a top view thereof; and, FIG. 7 is a bottom view thereof. The broken lines in figures are to show unclaimed subject matter and form no part of the claimed design.

1 Claim, 7 Drawing Sheets



(56)

References Cited

U.S. PATENT DOCUMENTS

D829,790 S * 10/2018 Gou D15/144
D831,717 S * 10/2018 Gou D15/144
D844,561 S * 4/2019 Gou D13/110

OTHER PUBLICATIONS

Yihua 900H high frequency soldering station, posted on yihua-soldering.com, no posted date given, no production date given, [online], [site visited May 8, 2020], available on internet, URL: <http://yihua-soldering.com/product-5-1-high-frequency-soldering-station.html/147696/> (Year: 2020).*

JBC Hot Air Station, posted on tequipment.net, earliest reviewed Jul. 11, 2018, no production date given, [online], [site visited May 8, 2020], available on internet, URL: <https://bit.ly/2WyjS0w> (Year: 2018).*

* cited by examiner

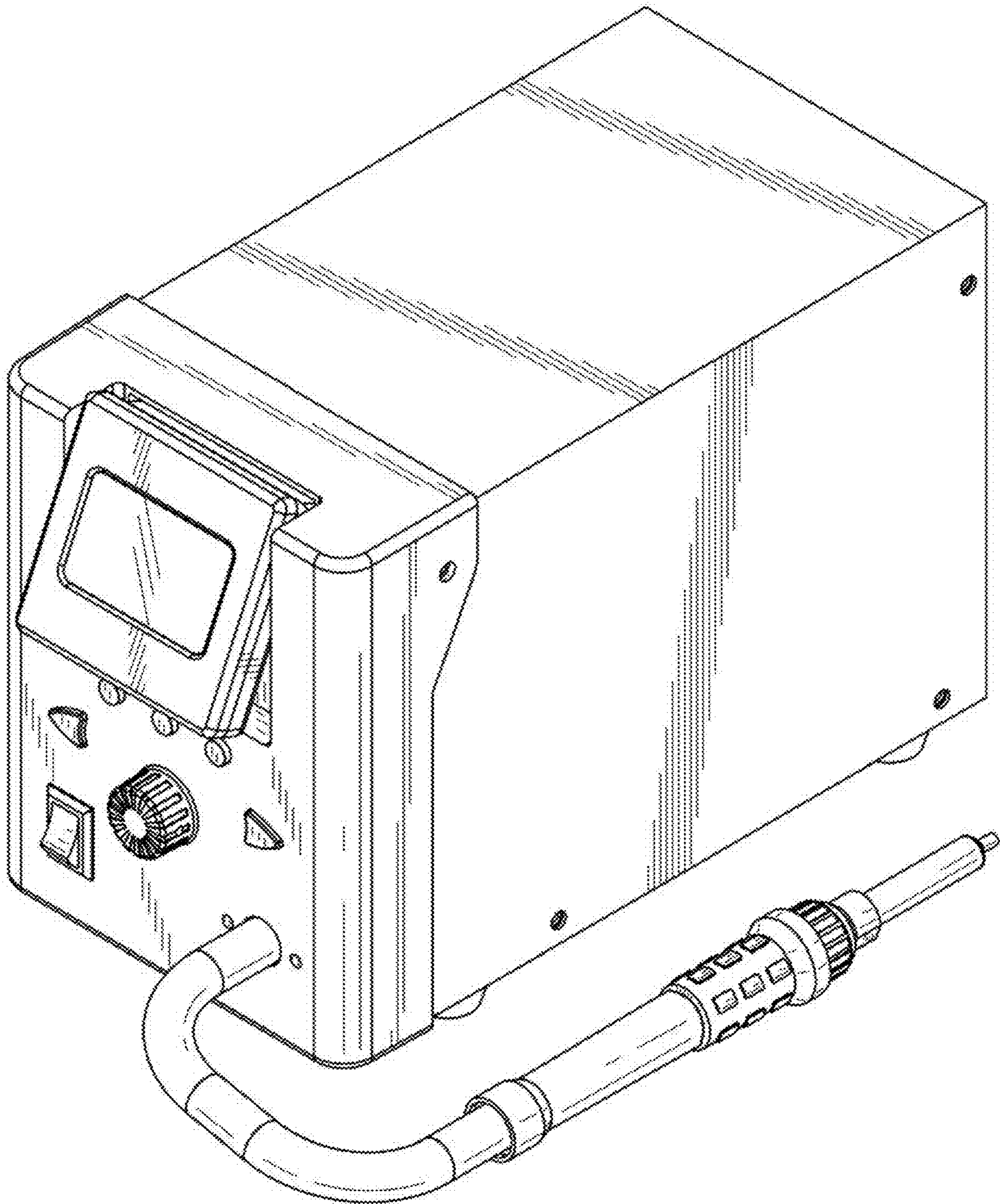


FIG. 1

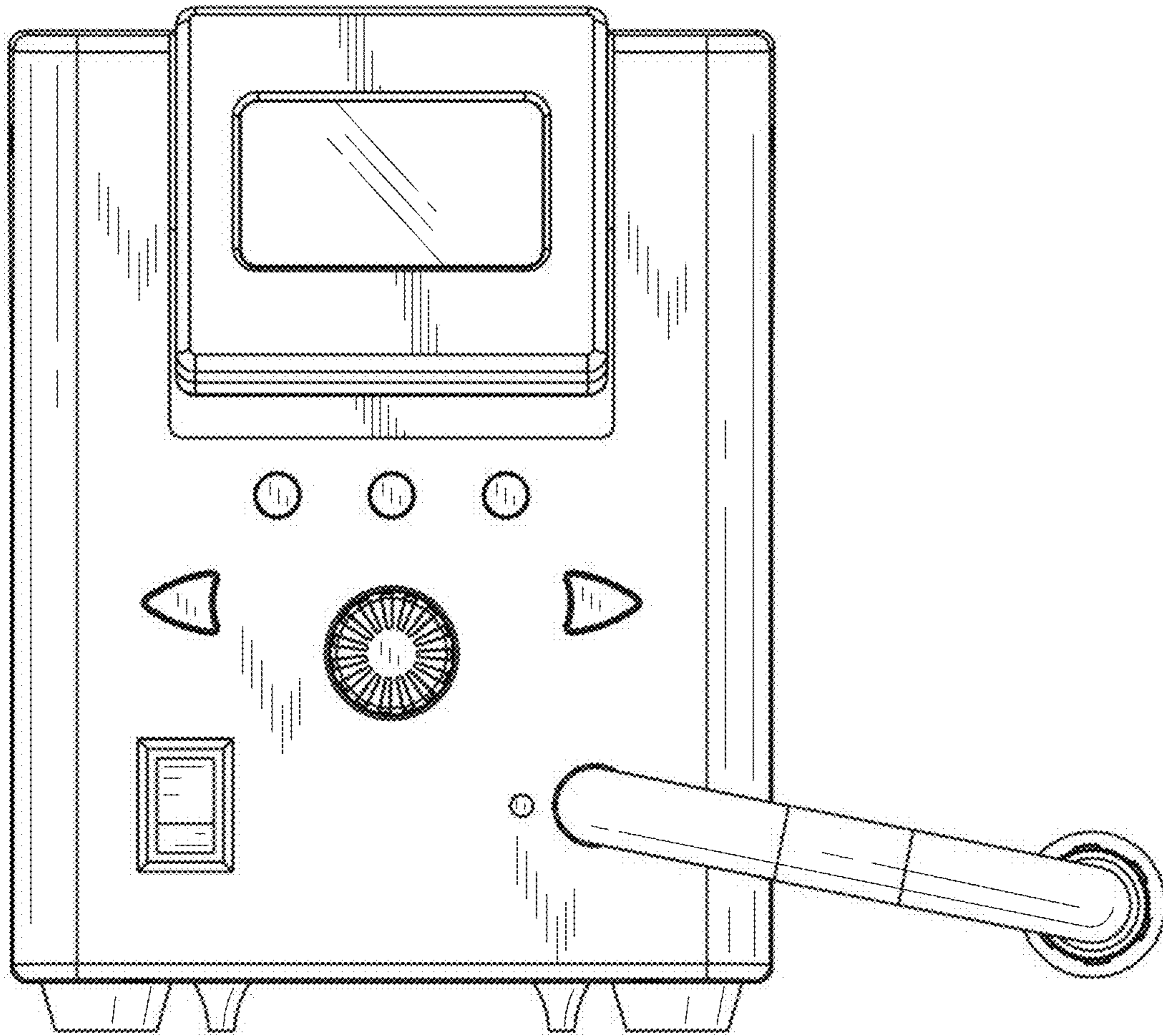


FIG. 2

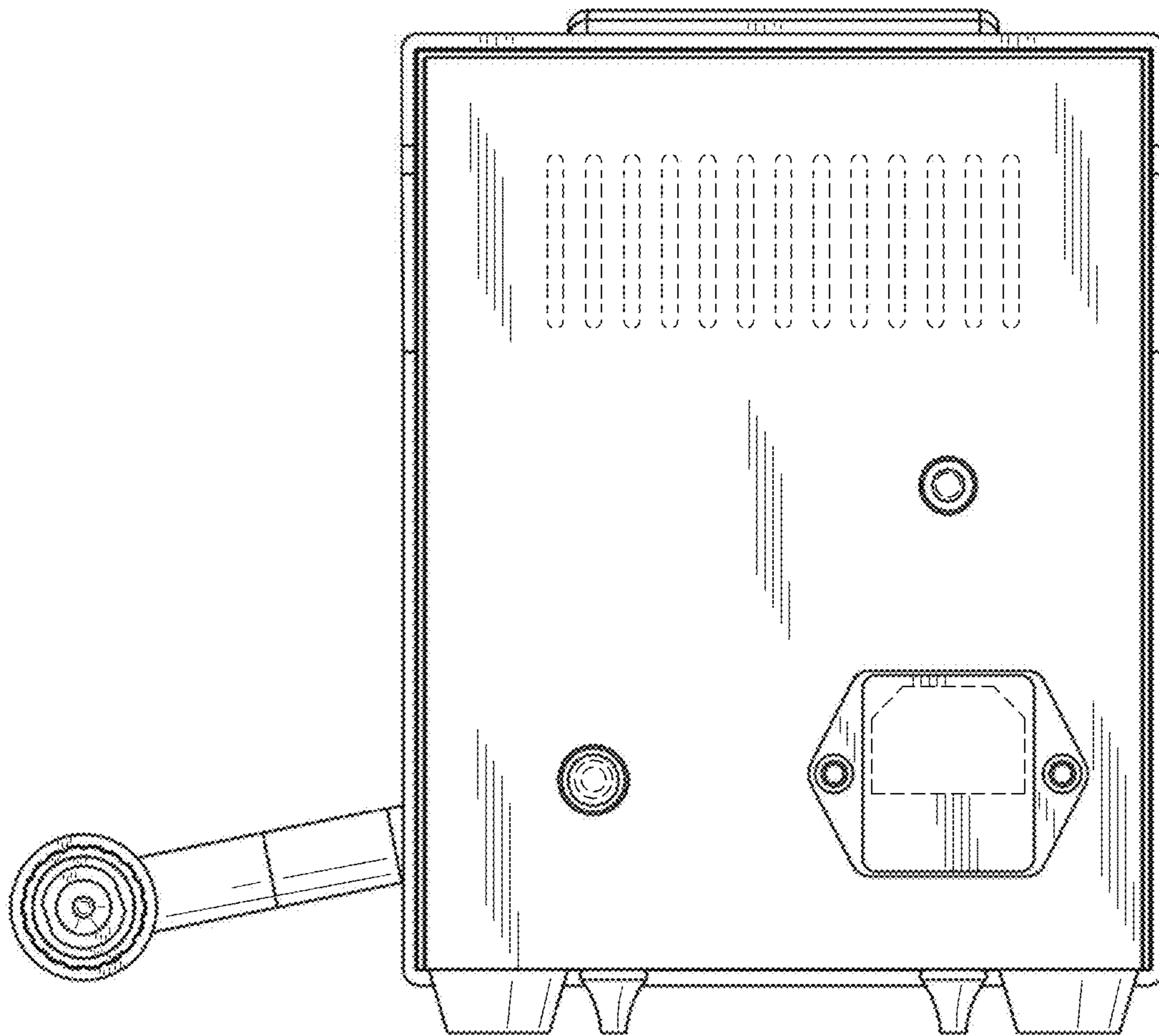


FIG. 3

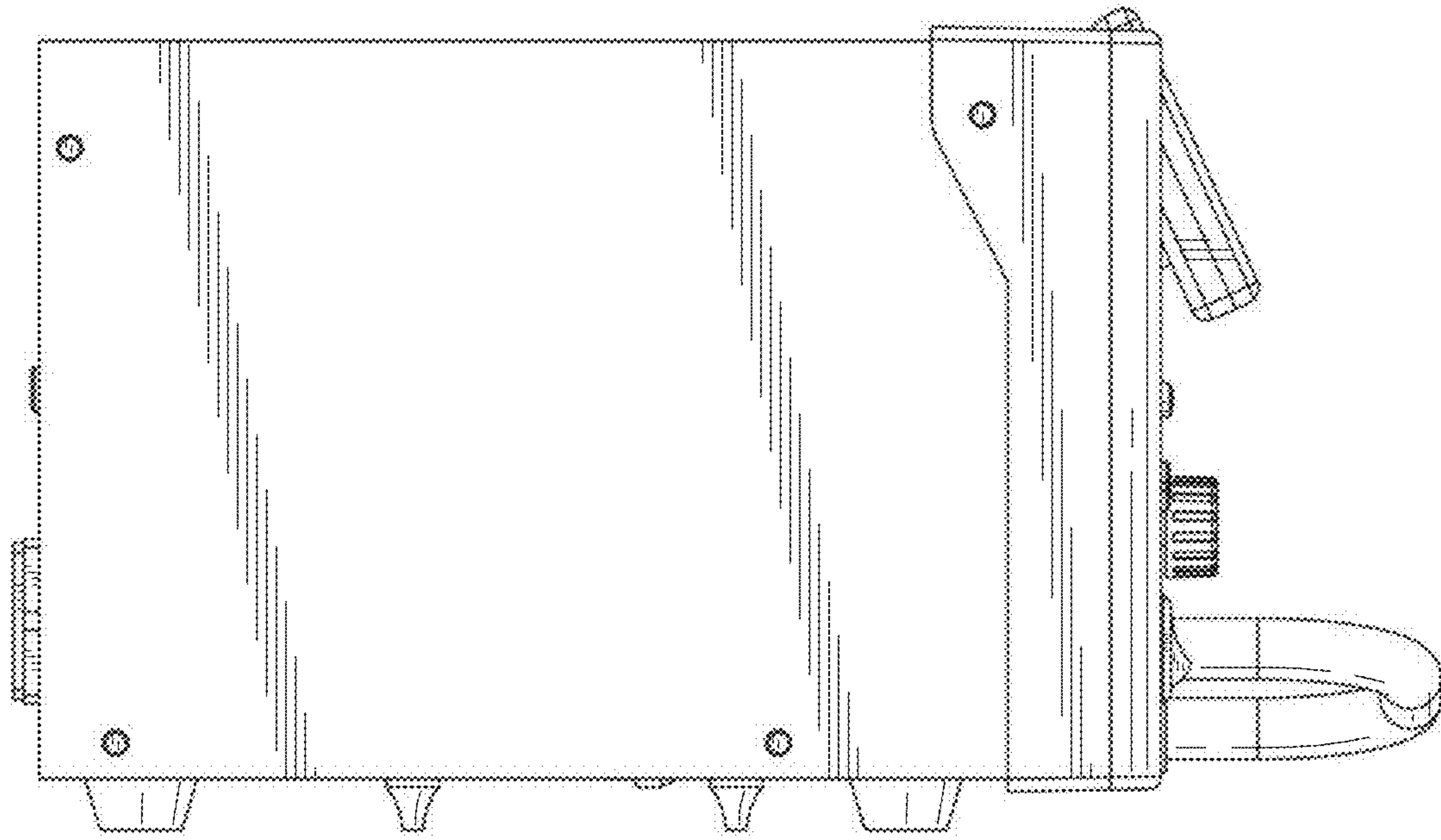


FIG. 4

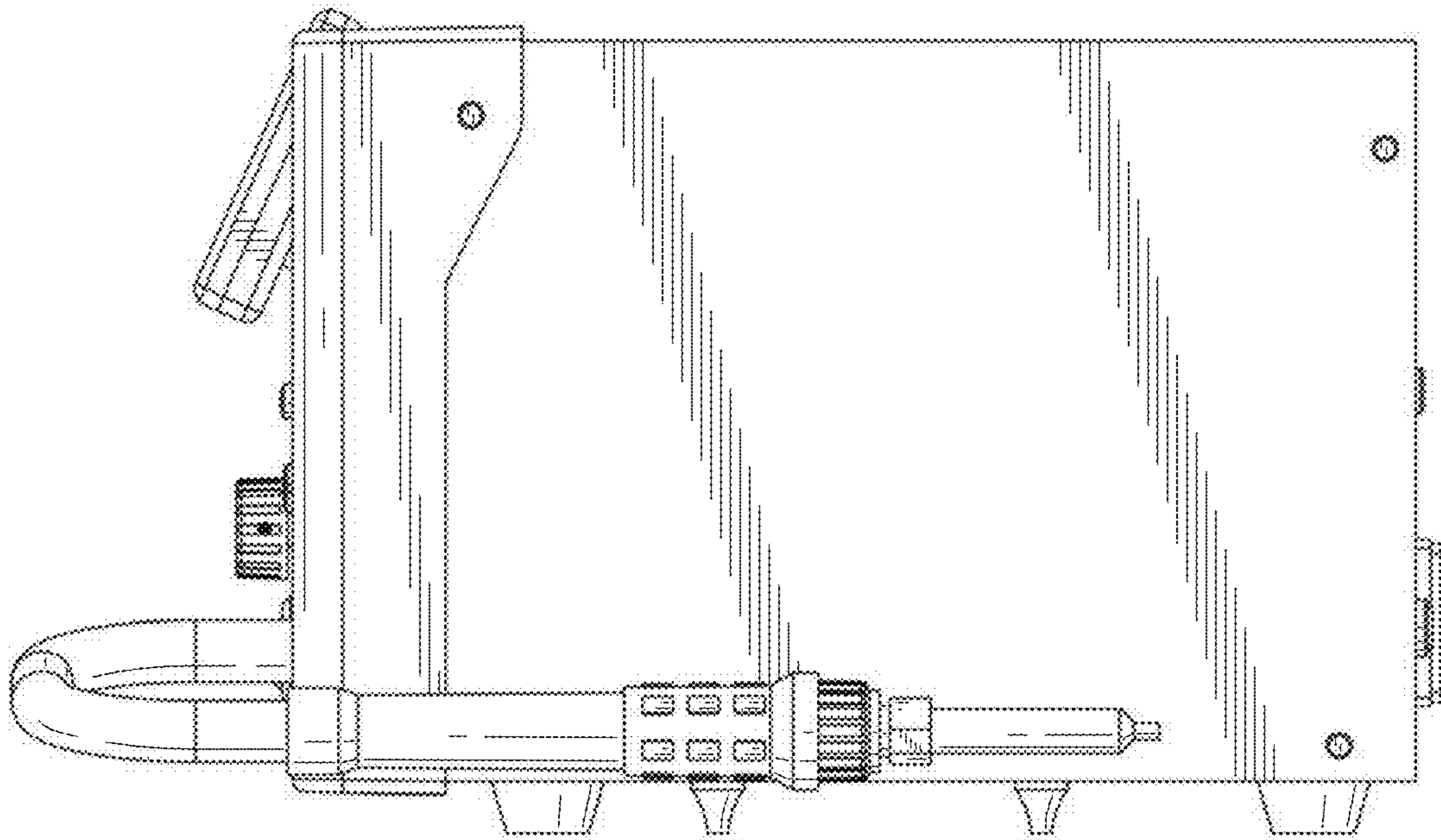


FIG. 5

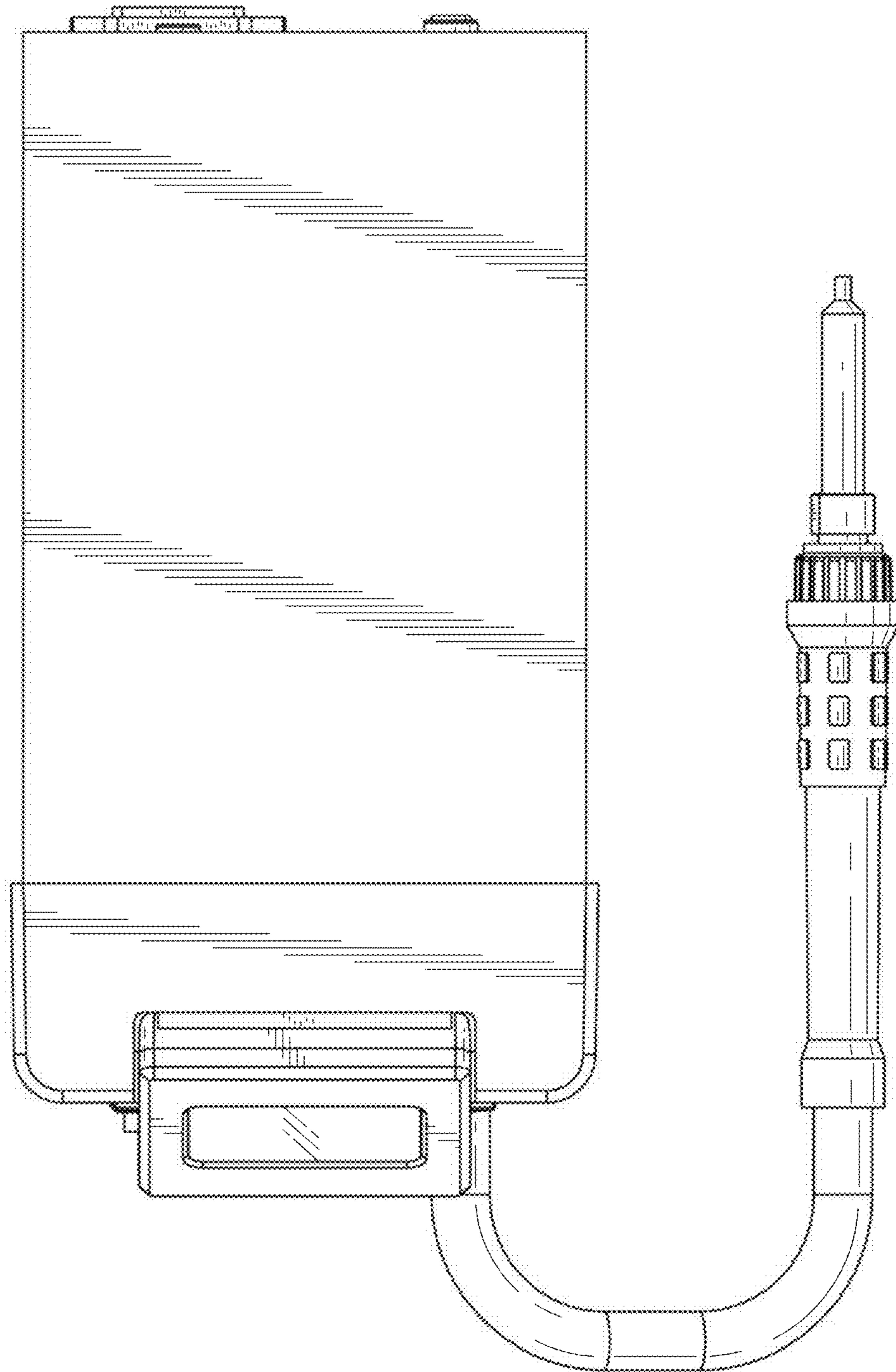


FIG. 6

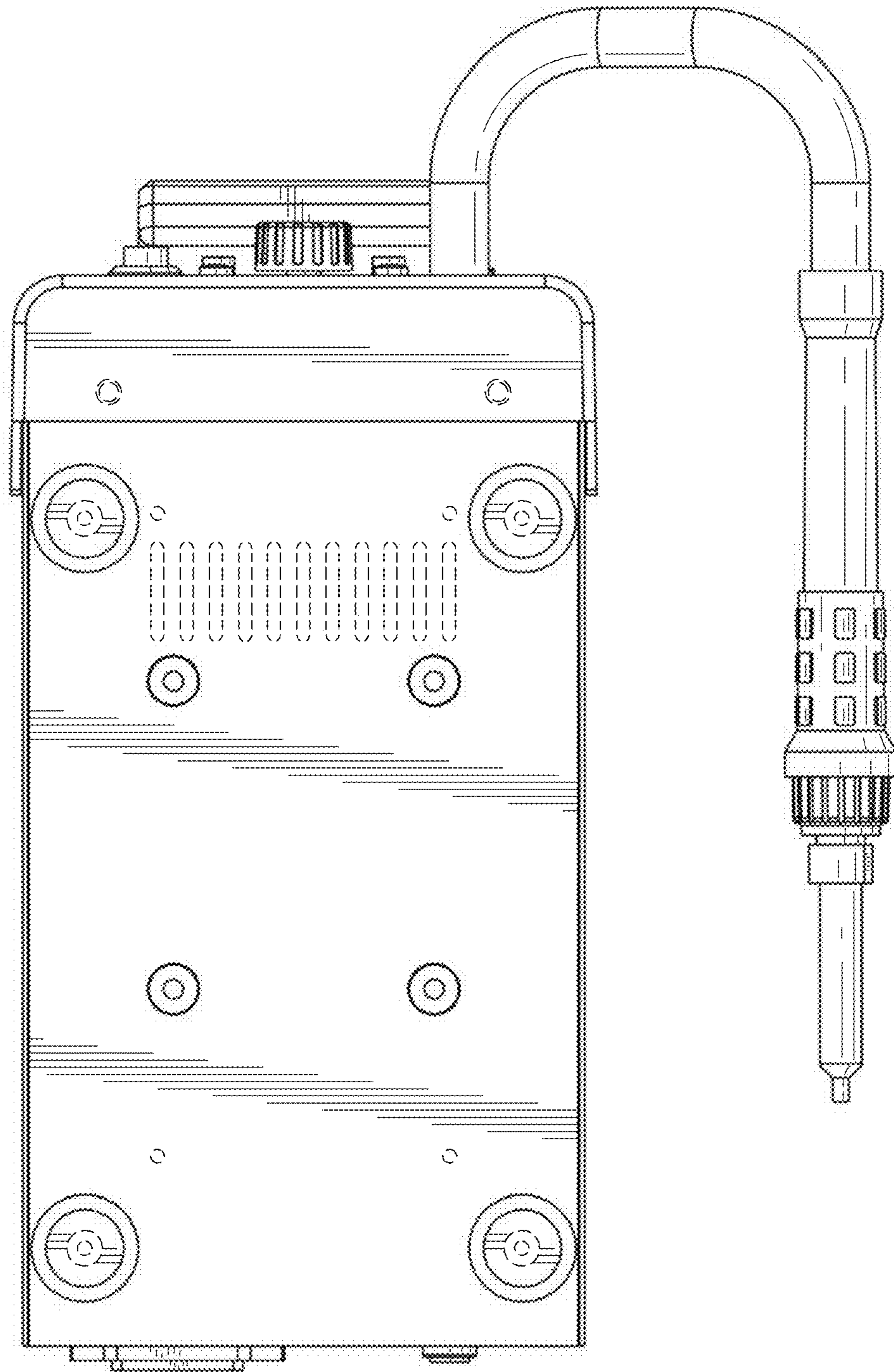


FIG. 7