What is claimed is:

1. An apparatus for inserting a paper or film object or a stack of such objects into an envelope, comprising:

a feeding apparatus for moving the object toward the envelope;

a vacuum drum having a surface adapted to engage and move the envelope toward the object; and

a ramp element coupled to said vacuum drum and including a generally flat surface tangential to said vacuum drum adapted to support the envelope as the envelope moves with said vacuum drum.

2. The apparatus of claim 1, further comprising:

at least one clip for limiting movement of the envelope toward the object.

3. The apparatus of claim 2, further comprising:

a motor operatively coupled to said at least one clip for automatically adjusting a position of said clip in response to a length of the envelope.

4. An automatic envelope stuffing apparatus having a first end associated with feeding of a roll of paper and a processing apparatus for converting the roll of paper into discrete sheets, the envelope stuffing apparatus further comprising:

an apparatus for inserting the discrete sheets of paper into envelopes, said apparatus including:

(a) a feeding apparatus for inserting the discrete sheets of paper toward the envelopes;

(b) a vacuum drum having a surface adapted to engage and move the envelopes toward the discrete sheets; and

(c) a ramp element coupled to said vacuum drum and including a generally flat surface tangential to said vacuum drum and adapted to support the envelopes as the envelopes move with said vacuum drum.

5. The apparatus of claim 4, wherein said vacuum drum is servo-controlled and includes a plurality of holes defining the surface for engagement of the envelopes, and a vacuum source in fluid communication with said plurality of holes for selectively applying negative pressure through one or more of said plurality of holes.

6. The apparatus of claim 4, wherein said vacuum drum includes a vacuum source continuously generating negative pressure at the surface of said vacuum drum.

7. The apparatus of claim 4, wherein said ramp element is stationary relative to said vacuum drum.

8. An apparatus for processing envelopes and a paper or film object or a stack of such objects to be inserted into the envelopes, comprising:
a frame structure;
a support plate mounted on said frame structure and generally stationary relative thereto, said support plate having a generally flat surface for supporting a stack of the envelopes in a generally upright orientation;
a pressure sensing lever mounted on said frame structure and having a sensing surface oriented transverse to said support plate, said pressure sensing lever being pivotally movable in response to pressure exerted by the stack of the envelopes, said pressure sensing lever positioned relative to said support plate to permit a leading portion of a first envelope of the stack to extend into a region behind said sensing surface;
a feeding apparatus for moving the object toward an envelope of the stack of envelopes;
a vacuum drum supported from said frame structure and having a surface adapted to engage and move the envelope toward the object; and
a ramp element coupled to said vacuum drum and including a generally flat surface tangential to said vacuum drum adapted to support the envelope as the envelope moves with said vacuum drum.

9. A method of processing envelopes and a paper or film object or a stack of such objects to be inserted into the envelopes, the method comprising:
moving the object toward an insertion station;
applying negative pressure against the envelope to engage the envelope against a rotating surface;
moving the rotating surface to move the envelope toward the insertion station;
supporting a leading portion of the envelope with a relatively stationary surface as the envelope moves with the rotating surface;
applying a first force against a stack of the envelopes to move them toward the insertion station;
engaging a first envelope of the stack with a pivotally movable surface;
pivotally moving the movable surface in response to the first force; and
applying a second force against the stack of envelopes different from the first force.

10. A method of processing envelopes and a paper or film object or a stack of such objects to be inserted into the envelopes, the method comprising;
moving the object toward an insertion station;
applying negative pressure against the envelope to engage the envelope against a rotating surface;
moving the rotating surface to move the envelope toward the insertion station;
biasing a stack of the envelopes toward an envelope feed position;
sensing pressure on a lead envelope at the feed position resulting from the biasing; and
controlling the biasing in response to the sensing.

11. The method of claim 10, further comprising:
removing the lead envelope from the stack of envelopes; and moving the lead envelope toward the insertion station.

What is claimed is:

1. An apparatus for inserting a paper or film object or a stack of such objects into an envelope, comprising:

a feeding apparatus for moving the object toward the envelope;

a rotatable vacuum drum having a surface adapted to engage and move the envelope toward the object; and

a ramp element coupled to said vacuum drum and stationary relative thereto, said ramp element including a generally flat surface tangential to said vacuum drum and adapted to support the envelope as the envelope moves with said vacuum drum.

2. The apparatus of claim 1, further comprising: at least one clip for limiting movement of the envelope toward the object.

3. The apparatus of claim 1, further comprising: a motor operatively coupled to said at least one clip for automatically adjusting a position of said clip in response to a length of the envelope.

4. An automatic envelope stuffing apparatus having a first end associated with feeding of a roll of paper and a processing apparatus for converting the roll of paper into discrete sheets, the envelope stuffing apparatus further comprising:

an apparatus for inserting the discrete sheets of paper into envelopes, said apparatus including:

(a) a feeding apparatus for inserting the discrete sheets of paper toward the envelopes;

(b) a rotatable vacuum drum having a surface adapted to engage and move the envelopes toward the discrete sheets; and

(c) a ramp element coupled to said vacuum drum and stationary relative thereto, said ramp element including a generally flat surface tangential to said vacuum drum and adapted to support the envelopes as the envelopes move with said vacuum drum.

5. The apparatus of claim 4, wherein said vacuum drum is servo-controlled and includes a plurality of holes defining the surface for engagement of the envelopes, and a vacuum source in fluid communication with said plurality of holes for selectively applying

negative pressure through one or more of said plurality of holes.

6. The apparatus of claim 4, wherein said vacuum drum includes a vacuum source continuously generating negative pressure at the surface of said vacuum drum.

7. An apparatus for processing envelopes and a paper or film object or a stack of such objects to be inserted into the envelopes, comprising:

a frame structure;

a support plate mounted on said frame structure and generally stationary relative thereto, said support plate having a generally flat surface for supporting a stack of the envelopes in a generally upright orientation;

a pressure sensing lever mounted on said frame structure and having a sensing surface oriented transverse to said support plate, said pressure sensing lever being pivotally movable in response to pressure exerted by the stack of the envelopes, said pressure sensing lever positioned relative to said support plate to permit a leading portion of a first envelope of the stack to extend into a region behind said sensing surface;

a feeding apparatus for moving the object toward an envelope of the stack of envelopes;

a rotatable vacuum drum supported from said frame structure and having a surface adapted to engage and move the envelope toward the object; and

a ramp element coupled to said vacuum drum and stationary relative thereto, said ramp element including a generally flat surface tangential to said vacuum drum adapted to support the envelope as the envelope moves with said vacuum drum.

8. A method of processing envelopes and a paper or film object or a stack of such objects to be inserted into the envelopes, the method comprising:

moving the object toward an insertion station;

applying negative pressure against the envelope to engage the envelope against a rotating surface of a drum;

moving the rotating surface of the drum to move the envelope toward the insertion station;

supporting a leading portion of the envelope with a relatively stationary surface as the envelope moves with the rotating surface of the drum;

applying a first force against a stack of the envelopes to move them toward the insertion station;

engaging a first envelope of the stack with a pivotally movable surface;

pivotally moving the movable surface in response to the first force; and

applying a second force against the stack of envelopes different from the first force.

9. A method of processing envelopes and a paper or film object or a stack of such objects to be inserted into the envelopes, the method comprising:

moving the object toward an insertion station;

applying negative pressure against the envelope to engage the envelope against a rotating surface of a drum;

moving the rotating surface of the drum to move the envelope toward the insertion station;

supporting a leading portion of the envelope with a relatively stationary surface as the envelope moves with the rotating surface of the drum;

biasing a stack of the envelopes toward an envelope feed position;

sensing pressure on a lead envelope at the feed position resulting from the biasing; and controlling the biasing in response to the sensing.

10. The method of claim 9, further comprising: removing the lead envelope from the stack of envelopes; and moving the lead envelope toward the insertion station.